Social Identity Transition: The Role of Social Identity in Eating Disorder Recovery

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Copyright Statement

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Abstract

Disordered eating recovery is often conceptualised as recovering from physical and psychological features (e.g., weight restoration, reduction in binge eating, self-esteem no longer being tied to weight, no longer over-evaluating weight, and body shape). However, researchers have argued that recovery is not an individualistic process, that it is intertwined with a process of social identity change (Best et al., 2016), thus, recovering socially is also a crucial component of disordered eating recovery (De Vos et al., 2017). Initial research shows that social identities have an important role within disordered eating recovery (Ison & Kent, 2010; McNamara & Parsons, 2016), however, there is a lack of knowledge regarding the more specific nuances of social identities throughout disordered eating recovery. To address this, the present research explored the relationship between social identities and disordered eating recovery.

An adapted exploratory sequential mixed method approach was undertaken to address the research question and subsequent objectives. Study 1a (Chapter 4) used an online Social Identity Mapping tool to quantitatively and qualitatively explore the composition of social identity networks held by people in disordered eating recovery (*N*= 15). Study 1b (Chapter 5) qualitatively explored what disordered eating recovery meant to people who identified as in recovery and how social groups featured throughout disordered eating recovery(*N*= 15). Based on the conclusions from Study 1, Study 2 was a cross-sectional (*N*= 185; Chapter 6) and longitudinal (*N*= 99; Chapter 7) exploration of the relationship between group identifications and mental health/well-being for people seeking disordered eating recovery. The samples used across this thesis all reported seeking and/or being in disordered eating recovery and varied in age (range: 18-62).

There are four main original contributions from the present research. (1) This body of work is the first to show people in disordered eating recovery belong to a wide variety of groups that can be beneficial for disordered eating recovery (e.g., family, friends, work friends, hobby groups, opinion-based groups, and demographic groups). Not only were a variety of group found, but understanding the composition of social groups (e.g., positivity, compatibility, and supportiveness of recovery) aids the knowledge development regarding the relationship between social groups

and disordered eating recovery. Therefore, this research not only extends previous knowledge but provides an initial understanding about the composition of social groups and social identity networks of people seeking/ in disordered eating recovery. (2) This research established the presence of the 'uninvolved' group, an important but complex group. The 'uninvolved' group represents groups not aware or involved in the recovery process but are perceived to be supportive. Through this research it can be argued that not all social groups need to be aware of or involved in the disordered eating recovery process, but they need to enable the person recovering to enact their 'normal' life as this will aid their recovery. (3) This work was the first to establish the nature of disclosure and concealment of disordered eating to social groups, throughout disordered eating recovery. Showing that both being open and concealing disordered eating from social groups were positive for disordered eating recovery and general health and well-being (anxiety symptoms, depression symptoms, and satisfaction with life). (4) This research was the first to show that a process of social identity change was intertwined with disordered eating recovery: participants created distance from social groups perceived as unsupportive or that do not fit with recovery, maintained important and supportive groups, and gained new groups that aligned with their recovery. Therefore, the present research showed that social groups and identification with those groups are an important part of disordered eating recovery. As such, it is argued that disordered eating recovery definitions should incorporate social recovery, more specifically a process of social identity change, alongside psychological and physical recovery.

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1. A Review of Disordered Eating and Disordered Eating Recovery Literature

1.1. Chapter overview

The overall aim of this thesis is to explore the relationship between social identities and disordered eating recovery. As such, first the current understandings of disordered eating will be examined, as there is a lack of consistency within research when utilising disordered eating as an umbrella term. As the focus of this research is disordered eating recovery, it is imperative to establish what disordered eating is, before being able to explore recovery from disordered eating. Definitions of disordered eating range from exclusively referring to sub-clinical disordered eating (Bacopoulou, Foskolos, Stefanaki, Tsitsami, & Vousoura, 2018; Wade, Wilksch, & Lee, 2012) to a broad conceptualisation that encompasses sub-clinical disordered eating through to eating disorders (Cruwys, Platow, Rieger, Byrne, & Haslam, 2016; Papathomas, White, & Plateau, 2018). Unlike disordered eating, there is extensive knowledge about eating disorders (i.e., Anorexia Nervosa: Dahlgren & Rø, 2014; Darcy et al., 2011; Franko et al., 2018; Westmoreland, Krantz, & Mehler, 2016). As this literature review will highlight, there is no consistency when researching and referring to disordered eating. Therefore, the understanding and definitions that will be used throughout this thesis will be identified. Before this research can investigate the relationship between social identities and disordered eating recovery, it is crucial to establish what is meant by disordered eating recovery. Therefore, reviewing the literature around disordered eating recovery is an important foundation for this thesis. Again, there is a lack of consensus on what constitutes disordered eating recovery and the process by which it is achieved (Bardone-Cone, Hunt, & Watson, 2018; Wade & Lock, 2019). Through reviewing disordered eating recovery research, the concepts of physical recovery, psychological recovery and social recovery which are all believed to be central to disordered eating recovery (De Vos et al., 2017) will be established. This chapter will

therefore establish how this present research will address the ultimate aim of the thesis: the relationship between social identities and disordered eating recovery.

1.2. What is disordered eating?

Disordered eating is an umbrella term that encompasses a wide variety of problematic eating behaviours and/or attitudes, ranging from excessive dieting to eating disorders (Papathomas, White, & Plateau, 2018). Some researchers utilise this all-encompassing definition of disordered eating, while others use disordered eating only to refer to extreme eating behaviours and attitudes (i.e., body dissatisfaction, overly restrictive dieting, and binge eating) that are problematic but not sufficient to meet clinical/diagnostic criteria (Conviser, Fisher, & McColley, 2018). Those who do not meet the diagnostic criteria for clinical eating disorders (EDs) but do exhibit problematic behaviours are often classified as having sub-clinical eating disorders (Hoyt & Ross, 2003). Disordered eating research highlights two distinct categories within disordered eating: sub-clinical EDs and EDs. However, there is no firm definition of disordered eating that is utilised consistently. Researchers have suggested that sub-clinical EDs are more prevalent than EDs, but there is a lack of consistency when researching disordered eating (Papathomas et al., 2018). Due to the varying nature of disordered eating definitions, it is important to explore the disordered eating spectrum to best understand what this thesis is investigating. As such, sub-clinical EDs and EDs will be further discussed below with the aim to effectively establish what disordered eating means and represents.

Disordered eating is thought to have three main phases: development, maintenance, and recovery (Dalle Grave, 2011; Harrison, Treasure, & Smillie, 2011; Fairburn, Cooper, & Shafran, 2003; Keel & Heatherton, 2010; Kinsaul, Curtin, Bazzini, & Martz, 2014; Mitchison, Dawson, Hnad, Mond, & Hay, 2016; Patching & Lawler, 2009). Specific risk factors that can lead to the development of disordered eating include, lack of control, lack of social connectedness, and social conflict (Patching & Lawler, 2009). The maintenance phase refers to the continued enactment and

endorsement of disordered eating (i.e., over-evaluation of eating, body dissatisfaction and control; Fairburn et al., 2003). Finally, the recovery phase denotes the stage where disordered eating is no longer engaged in or endorsed (Emanuelli, Waller, Jones-Chester, & Ostuzzi, 2012). It should be noted that although disordered eating is neatly sectioned into these phases throughout clinical and research perspectives, this view is too simplistic and disordered eating should be interpreted as a non-linear journey (Patching & Lawler, 2009). For ease of synthesis of this work, this chapter will first focus on the features of disordered eating which are commonly associated with the development and maintenance phases for both sub-clinical and clinical EDs before turning to features of disordered eating recovery with the ultimate aim of establishing the areas within this body of work that will be addressed by this thesis.

1.2.1. What are sub-clinical eating disorders?

People with sub-clinical EDs are categorised as having higher levels of disordered eating than seen in general population but which are not problematic enough to warrant clinical ED diagnosis (Franko & Omori, 1999). They are perceived as a group at high risk of developing clinical EDs (Melve & Baerheim, 1994). There are a variety of psychological and physical features (i.e., body dissatisfaction, dieting behaviours, self-esteem) highlighted as components of sub-clinical EDs (Vohs, Heatherton, & Herrin, 2001). It is thought that sub-clinical EDs are a major concern which are consistently underestimated (Wade, Wilksch, & Lee, 2012). Sub-clinical ED pathology is becoming normative for young women and more common in men (i.e., dietary restraint, driven exercise; Lavender, De Young, & Anderson, 2010; Pennesi & Wade, 2016). When sub-clinical ED behaviours become problematic, and they progress to clinical EDs (Melve & Baerheim, 1994). It could be argued that while sub-clinical EDs could be a precursor to ED development, they themselves are common and have serious consequence that warrant further exploration.

It is thought sub-clinical EDs are less severe than clinical EDs, but they are still associated with both physical and psychological well-being concerns (Wade et al., 2012) such as lower quality of

life, including poorer physical, psychological, social functioning (Herpertz-Dahlmann, Wille, Hölling, Vloet, & Ravens-Sieberer, 2008). It has been suggested that the psychological consequences of disordered eating pathology are more severe than the physical implications (Jenkins et al., 2014). Research into sub-clinical ED pathology has shown a relationship between symptoms and impaired health and well-being, however, this research is considerably lacking in comparison to clinical EDs (Wade et al., 2012). As sub-clinical EDs are associated with not only physical but also psychological disordered eating concerns, there are clear similarities in the underlying pathology in both sub-clinical and clinical EDs (Bunnell, Shenker, Nussbaum, Jacobson, & Cooper, 1990). As such, these sub-clinical EDs are thought of as precursors to EDs and a key group that should be targeted with interventions to prevent the development of clinical EDs (Cotrufo, Barretts, Monteleone, & Maj, 1998). Targeting interventions to address sub-clinical EDs has been associated with reductions in disordered eating pathology (i.e., thin idealisation; Stice, Trost, & Chase, 2002) and psychosocial impairment (i.e., mood, self-perception, cognitive functioning, interpersonal functioning, and work performance; Saekow et al., 2015). Reportedly people with sub-clinical ED pathology are more likely to have comorbidity of other mental health concerns (see Section 1.2.3), and this increases the potential of developing clinical EDs (Fitzsimmons-Craft et al., 2019). It could be argued that the sub-clinical ED pathology, psychosocial impairment, and comorbidity of mental health concerns are the features to focus on rather than the physical symptoms.

1.2.2. What are eating disorders?

EDs represent multiple clinically problematic disordered eating pathology (Fairburn & Harrison, 2003; Hoyt & Ross, 2003). Clinical EDs are debilitating conditions that have personal, social, and medical consequences (Stanghellini, Castellini, Bronga, Faravelli, & Ricca, 2012). Reportedly, there are approximately 1.25 million people across the UK that are living with an ED (BEAT, 2021). Globally, lifetime prevalence rates for EDs range from 8.4% of women, and 2.2% of men (Galmiche, Déchelotte, Lambert, & Tavolacci, 2019). Young men and women (13-17 years

old) are most at risk of developing EDs, but EDs can develop at any age (NICE, 2017). According to the Office of National Statistics (2020), across the UK in 2017, 46 people died from an ED, in 2018, 55 people died from an ED, and in 2019, 36 people died from an ED. It has been reported that Anorexia Nervosa has the highest mortality rate of all mental health disorders (BEAT, 2021). The impacts of EDs stretch further than the health implications, there are also serious implications economically for the UK (Virgo, 2021). The estimated annual cost of EDs for the UK in 2019 was between £7 billion and £10.5 billion, while in 2020 the estimated cost ranged from £7.5 billion to £11.2 billion (Virgo, Ayton, & Breen, 2021). Therefore, these statistics show that EDs are a major health problem and not only affect lots of people, but also their family, friends, and communities.

The Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-V; American Psychological Association, 2013) highlights the diagnostic criteria for six feeding and eating disorders: Pica, Rumination disorder, Avoidant/restrictive food intake disorder, Anorexia nervosa, Bulimia nervosa and Binge-eating disorder. Research into prevalence rates of the different EDs found that Avoidant/restrictive food intake disorder accounted for 5% of ED cases, Anorexia Nervosa 8%, Bulimia Nervosa 19%, and Binge-eating disorder 22% (BEAT, 2021). The DSM-V acknowledges that there are many similarities within all these feeding and eating disorders, however, there are clear distinctions made regarding the diagnostic, treatment, and recovery attributes for each sub-type (American Psychiatric Association, 2013). From the six feeding and EDs highlighted in the DSM-V, Anorexia Nervosa, Bulimia Nervosa and Binge-eating disorder are the more prevalent, with rates ranging from .4%-1.8% (American Psychiatric Association, 2013), suggesting this is why these are the most commonly researched EDs. Throughout this thesis, Anorexia Nervosa and Bulimia Nervosa were the most commonly reported ED diagnoses from participants, as such, it was deemed appropriate to focus on Anorexia Nervosa and Bulimia Nervosa when reviewing the ED literature further.

1.2.2.1. Anorexia Nervosa

Anorexia Nervosa (AN) is associated with fear of weight gain and engagement with unhealthy behaviours (e.g., starvation & excessive exercise) to inhibit weight gain (Dahlgren & Rø, 2014). More specifically, the DSM-V classifies AN by three key features, i) the persistent restriction of energy intake (criterion A); ii) an intense fear of gaining weight/being fat or regularly engaging in weight restricting behaviours (criterion B); iii) an unhealthy view of body weight and shape and emphasising on these physical attributes when self-evaluating or being unable to understand the consequences of low body weight (criterion C, American Psychiatric Association, 2013). Within these DSM-V criteria, significantly low weight is defined as a weight lower than what is normally expected and is determined in relation to individual attributes (e.g., age, gender, and physical health). There are two AN sub-types: restricting type and Binge-eating/purging type (American Psychiatric Association, 2013). Restricting AN involves the use of dieting, fasting and excessive exercise to achieve a desired weight loss (Eddy et al., 2015). To fit the DSM-V diagnostic criteria for restricting AN, the above behaviours must have been present for at least three months (American Psychiatric Association, 2013). Meanwhile, binging-eating/purging AN refers to the participation in binging and purging behaviours regularly to lose weight (Lavender et al., 2015). Again, for the DSM-V criteria to apply, these behaviours must have occurred for a period of three months (American Psychiatric Association, 2013).

Alongside these main criteria for AN and its sub-types, the DSM-V provides four levels of severity for AN, all of which are based on current Body Mass Index (BMI) for adults: mild (BMI ≥17 kg/m^2), moderate (BMI 16-16.99 kg/m^2), severe (BMI 15-15.99 kg/m^2) and extreme (BMI ≤15 kg/m^2). AN reportedly has a prevalence rate of approximately 0.4% of adolescent females, with no known prevalence rates for males, although AN is thought to be less common in males than females (American Psychiatric Association, 2013). When AN is utilised within this thesis, it refers to this clinical definition, as all participants who discussed having AN had received a clinical diagnosis of AN.

1.2.2.2. Bulimia Nervosa

Bulimia nervosa (BN) is often characterised as the engagement in inappropriate purging behaviours (e.g., misusing laxatives and self-inducing vomiting) to prevent weight gain (Hay et al., 2014). The definition within the DSM-V (American Psychiatric Association, 2013) contains five key criteria. These are: i) recurrent episodes of binge eating (criterion A), which is defined by two features: eating an amount of food deemed larger than average in an isolated period of time, and sensing a lack of control over their eating during binging episodes; ii) engaging in repeated unhealthy compensatory behaviours to prevent weight gain (criterion B); iii) these binge eating episodes and compensatory behaviours occur at least once a week for three months C); iv) self-evaluation is hugely influenced by body weight and shape (criterion D); and v) these unhealthy thoughts and behaviours occur irrespective of incidents of Anorexia Nervosa E).

As with AN, the DSM-V (American Psychiatric Association, 2013) highlights four levels of severity within the BN diagnostic criteria: mild (average of 1-3 episodes of purging behaviours per week [p/w]), moderate (average of 4-7 episodes of purging behaviours p/w), severe (average of 8-13 episodes of purging behaviours p/w) and finally, extreme (average of 14+ episodes of purging behaviours p/w). Despite the five diagnostic criteria detailed above, the DSM-V claims that criteria A, B and D are essential diagnostic features of BN whilst criterion C is then needed to qualify for a clinical BN diagnosis (American Psychiatric Association, 2013). BN has a higher a reported prevalence than AN, of between 1%-1.5% in young female adults (American Psychiatric Association, 2013). Unlike the DSM-V criteria for AN, there is no set weight or BMI restrictions for the diagnosis of BN, however, people with BN typically have a normal weight (American Psychiatric Association, 2013). The definition of Bulimia nervosa utilised within this thesis is again the clinical understanding (e.g., the DSM-V) of BN, as all participants who discussed having a diagnosis of BN had all received a clinical diagnosis of BN.

1.2.3. Co-morbidity with other mental health conditions

As highlighted above (within Section 1.2.2 and sub sections) the underlying mechanisms of disordered eating (e.g., body dissatisfaction, weight concerns, and inappropriate compensatory behaviours) are consistent throughout the spectrum of disordered eating (i.e., from sub-clinical EDs to clinical EDs). Disordered eating at any level can have a negative impact on health and well-being (Wade et al., 2012). As such, it is important to consider other factors that have been implicated as additional components in the relationship between disordered eating and well-being. Another commonality across the disordered eating spectrum is the association with high levels of comorbidity with other psychiatric disorders (Hudson, Hiripi, Pope, & Kessler, 2007; Parlstein, 2002). These include mood and anxiety disorders (Touchette et al., 2011) and other disorders (e.g., attention-deficit hyperactivity disorder; Blinder, Cumella, & Sunathara, 2006). Two of the most common mental health disorders which are intricately linked with disordered eating are anxiety and depression (Trainor, Gorrell, Hughes, Sawyer, Burton, & Le Grange, 2020).

Endorsement of disordered eating pathology (i.e., weight concerns and unhealthy compensatory behaviours) is associated with higher levels of anxiety and depression (Pallister & Waller, 2008; Touchette et al., 2011). The relationship between disordered eating, anxiety and depression appears complex, as there is a lack of consensus on whether the disordered eating precedes anxiety and/or depression, or the reverse is true (Carrot et al., 2017). Reportedly anxiety is linked with increased severity of disordered eating symptomology (Spindler & Milos, 2007). Often there is a high risk of developing a different psychiatric disorder even once recovered from disordered eating (Halvorsen, Andersen, Heyerdahl, 2004; Jagielska & Kacperska, 2017). Researchers claim anxiety precedes the onset of disordered eating and is behind the high comorbidity between anxiety and disordered eating (Swinbourne, Hunt, Abbott, Russell, Clare, & Touyz, 2012). As such, it is difficult to conclude whether disordered eating paves the way for anxiety disorders, or whether the opposite is more accurate. Ultimately, there is an important interaction between disordered eating and anxiety which needs to be acknowledged when investigating disordered eating.

Researchers also argue that depression predicts disordered eating, and that the combination of disordered eating and depression could prevent successful engagement in treatment and consequently, recovery (Franko et al., 2018). As such, it is crucial to acknowledge the interaction between disordered eating and depression when exploring what disordered eating recovery is – one of the central aims of this thesis. Depression symptomology is worse during the acute phases of disordered eating, and is significantly reduced in recovery (Boehm et al., 2018). As with anxiety, it is unclear whether disordered eating causes depression or vice versa. Disordered eating is a perceived risk factor in the development of depression symptoms (Brechan & Kvalem, 2014; Lee & Vaillancourt, 2018). Additionally, key disordered eating pathology (i.e., body dissatisfaction and self-esteem) can also predict depression symptoms (Ferreiro, Seoane, & Senra, 2011). This work supports the argument that disordered eating and depression are interlinked. Therefore, it is also important to consider and acknowledge the relationship between depression and disordered eating to effectively explore disordered eating.

1.2.4. How does the disordered eating spectrum align with this thesis?

As highlighted in the sections above, the term disordered eating encompasses a wide variety of disordered eating pathology, from sub-clinical to clinically diagnosable EDs (Cruwys et al., 2016). Throughout this thesis both sub-clinical and clinical ED literature will be encompassed under the disordered eating spectrum due to the vast similarities across the spectrum. This section will highlight the similarities across the disordered eating spectrum and provide the rationale for the utilisation of the disordered eating spectrum within this thesis. In line with the disordered eating spectrum used throughout this thesis, there have been calls for a transdiagnostic approach to disordered eating, despite distinctions across the spectrum (Dakanalis, Timko, Clerici, Zanetti, & Riva, 2014; Fairburn, Cooper, & Shafran, 2003; Murphy, Straebler, Cooper, & Fairburn, 2010). A transdiagnostic approach proposes that over-evaluation of weight and body shape is a central psychopathology seen within both sub-clinical and clinical EDs, thus a core element of disordered eating (DeBois, Rodgers, Franko, Eddy, & Thomas, 2017).

Diagnostic instability (when a person meets and is given one diagnosis, but they then cross the diagnostic threshold to another diagnosis) has been reported for EDs. This in combination with low recovery rates could indicate that the underlying disordered eating pathology spans all EDs (Milos, Spindler, Schnyder, & Fairburn, 2005). Thus, it should be central to address these underlying commonalities to address the causal and maintaining properties across the disordered eating spectrum, highlighting the appropriateness of the transdiagnostic perspective (Fairburn et al., 2003). It could be argued that the disordered eating spectrum follows the concepts underlined by the transdiagnostic approach as it focuses the understanding that disordered eating is a spectrum based on the underlying similarities of disordered eating pathology.

The over-evaluation of weight and body shape is not only a core component of disordered eating (DeBois et al., 2017), but is also known to inform personal identity. More specifically, where disordered eating behaviours and cognitions become a source of self-definition (Stanghellini et al., 2012). Reportedly the internalisation of the disordered eating overshadows the pre-disordered eating sense of self (Cruzat-Mandich, Diaz-Castrillon, Escobar-Koch, & Simpson, 2017). Disordered eating becomes so integral to identity that the fear of recovery is intertwined with concerns of identity loss in recovery (Corning & Heibel, 2016). Thus, although others perceive the disordered eating identity negatively, it is highly valued by those who hold the identity (Nordbø, Espeset, Gulliksen, Skårderud, & Holte, 2006). This intertwining of disordered eating with understandings of the self could contribute to the poor treatment outcomes (Abbate-Daga, Amianto, Delsedime, De-Bacco, & Fassino, 2013). Therefore, identity must be considered an important concept when understanding both disordered eating and disordered eating recovery, as changes to this identity and adoption of a recovery-based identity could aid recovery efforts (Espindola & Blay, 2009).

The similarities across the disordered eating spectrum are not limited to the underlying pathology, but also extend to the social factors associated with the development and maintenance of disordered eating (i.e., interpersonal difficulties; Carter, Kelly, & Norwood, 2012, social comparison; Tiggemann, 2002; social functioning; Harrison, Mountford, & Tchanturia,

2014). Due to the central aims of this thesis, it is crucial to explore these in more depth. One of the most researched social features of disordered eating is social functioning which is thought to be more impaired in people with disordered eating (Harrison et al., 2014). Social functioning is the ability to successfully interact with the environment (e.g., work, socialising, and interpersonal relationships; Patel, Tchanturia, & Harrison, 2016) and is an important part of everyday life (Doris, Westwood, Mandy, & Tchanturia, 2014). It is thought social cognition is poorer in people with disordered eating as they are less able to correctly interpret social situations (e.g., recognising others mental state through facial cues; Russell, Schmidt, Doherty, Young, & Tchanturia, 2009). Social cognition, in addition to social skills, and interpersonal functioning, are thought to serve as facilitators of social functioning (Patel et al., 2016). Poor social functioning could occur prior to disordered eating, thus, making it a potential risk factor in the development of disordered eating (Troop & Bifulco, 2002). Reportedly, social functioning continues to be impaired throughout the illness (Wentz, Gillberg, Anckarsäter, Gillberg, & Råstam, 2009). As discussed previously (Section 1.2.3), it is difficult to establish the causal relationship between disordered eating and comorbid symptoms, this is also true for the relationship between disordered eating and social functioning (Patel et al., 2016). This suggests that social factors should be acknowledged and accounted for in the development and maintenance of disordered eating.

Another important social factor to consider when researching disordered eating is the role of interpersonal problems (Arcelus, Haslam, Farrow, & Meyer, 2012; Tasca et al., 2011). Interpersonal problems have been explored at length in association with disordered eating and a variety of problems have been discussed under the term interpersonal problems (i.e., interpersonal problem solving, emotion expression; negative evaluation, intimacy, and social comparisons; Arcelus et al., 2013). Interpersonal problems have been highlighted as an additional maintenance mechanism of EDs (Fairburn et al., 2003). It is thought interpersonal problems could lead to increased disordered eating, the reverse could also be true (Jackson, Weiss, Lunquist, & Soderlind, 2005). It is thought that disordered eating causes interpersonal problems as others do not know how to react to the disordered eating, which reinforces the disordered eating

pathology, suggesting a complex relationship between interpersonal relationships and disordered eating (Treasure & Schmidt, 2013).

Reportedly problems with interpersonal relationships (e.g., personal, family, and social relationships) can impact on the severity of an ED (Carter et al., 2012). In efforts to achieve the socially acceptable ideal increased reliance on the disordered eating may occur (Lampard, Tasca, Balfour, & Bissada, 2012). Thus, interpersonal problems can negatively impact on their social world, as those with EDs are reported to have deficient social networks (Tiller, Sloane, Schmidt, Troop, Power, & Treasure, 1997). Social networks are defined as a collection of people with whom one regularly interacts, and with whom one can build an identity (Leonidas & dos Santos, 2014). As the reactions of others can have negative implications for people with disordered eating, the inclusion of close others in the treatment of EDs is central to the cognitive-interpersonal maintenance model of AN (Schmidt & Treasure, 2006; Treasure et al., 2020; Treasure & Schmidt, 2013). Through the involvement of close others within the treatment process could counteract the negative social consequences of disordered eating (i.e., loneliness and social isolation; Treasure & Nazar, 2016).

There is a significant body of work exploring interpersonal relationships and disordered eating, however, there is less exploring disordered eating and social identities (Ison & Kent, 2010). Social identities are groups of people who identify themselves as an ‘us’ and ‘we’ rather than ‘I’, a feeling of belonging to a group of other people (Tajfel, 1974). As with interpersonal relationships, it is thought that people with disordered eating can have issues with their social groups, as groups (e.g., family and friends) can be dismissive of disordered eating (Ison & Kent, 2010). The small body of work exploring social identities and disordered eating suggests that due to the perceived stigma associated with disordered eating identity, people with disordered eating seek out a positive identity, often attached to their disordered eating (Giles, 2006; Rich, 2006). The positive identity assigned to disordered eating, could be an important factor in why disordered eating is treatment resistant, but this is not fully understood or acknowledged yet (Giles, 2006). Thus, there is a need for more research into the role of social identities in disordered eating to

understand how and why they may influence recovery as has previously been suggested (Giles, 2006).

Despite the importance that social factors (e.g., social relationships and social functioning) appear to have for people throughout the spectrum of disordered eating, even once in recovery, impaired social functioning is not considered a diagnostic criterion of EDs (Patel et al., 2016). An increase in social functioning is experienced by those in recovery, but it is still impaired compared to those without a history of disordered eating (Harrison et al., 2014). Social functioning may not improve to the level of someone without a history of disordered eating, however, improvement in social functioning has been described by People with EDs (PWEDs) as being as important as physical, psychological, and emotional recovery (Noordenbos & Seubring, 2006). Potentially, impaired social functioning and the positive social identity derived from disordered eating are important factors in the transition from illness to disordered eating recovery. However, to comprehensively understand how these social factors may interact with recovery, first disordered eating recovery needs to be discussed. As such, the rest of this chapter will focus on disordered eating recovery.

1.3. What is disordered eating recovery?

As disordered eating recovery is the main interest of this thesis, it is important to discuss the current understandings of disordered eating recovery, to establish where this thesis aligns with previous research. This section will also identify the gaps within the understanding of disordered eating recovery and what this thesis aims to address. Disordered eating recovery has varied definitions across the clinical (LeMarre & Rice, 2016) and research literature (Bowlby et al., 2015). The primary focus is disordered eating recovery, but there is an incredible lack of consistency throughout research on disordered eating recovery (Bardone-Cone, Hunt, & Watson, 2018). A considerable amount of literature focuses specifically on ED recovery, which in itself involves a range of definitions determining what constitutes ED recovery. This could be why there is little

consensus on what characterises successful recovery (Darcy, Katz, Fitzpatrick, Forsberg, Utzinger, & Lock, 2010). Over time, the definition of disordered eating recovery has shifted from focusing on the physical aspects (e.g., restored weight), to including the psychological aspects (e.g., better perception of body shape and weight) (Bardone-Cone et al., 2018). As such, this section will explore both clinical and research literature to establish an understanding the most appropriate definition of disordered eating recovery.

1.3.1. Eating disorder remission and recovery

According to the DSM-V there is either full or partial remission from EDs (American Psychiatric Association, 2013), highlighting two distinct points in recovery. Partial AN remission occurs when the fear of gaining weight and/or distorted perception of shape are no longer experienced, but an ideal body weight has not been achieved. For full remission, both the psychological and physical elements of AN cannot have been present for a sustained period. These remission definitions are similar to BN remission: partial remission occurs when the unhealthy behaviours have not been engaged in for over three-months whereas full remission involves none of the behaviours and/or thought processes occurring, and this must be maintained over a longer period (American Psychiatric Association, 2013). In the DSM-V there is a clear duration for the absence of disordered eating behaviours for partial BN remission (3-month period), but the same is not afforded for full BN remission, partial or full remission from AN (American Psychiatric Association, 2013). It could be argued that these clinical recommendations for ED remission are lacking in clarity regarding the period of absence necessary to meet the remission criteria (De Young et al., 2020). As such, researchers have sought to address the lack of clarification for time periods to meet remission stages by clarifying the necessary period of absence of ED symptomology to equate to different levels of remission and recovery from EDs, but to date there is little consensus on the specifics (Bardone-Cone et al., 2018).

It has been argued that clinical definitions of ED remission/recovery underestimate the complexities of ED recovery, and reduces recovery to minimalistic criteria (Bowlby, Anderson, Hall, & Willingham, 2015). As such, remission and recovery are considered different, with remission referring to the absence of clinical symptoms over a short period of time, while recovery is the absence of criteria over an extended period (Khalsa, Portnoff, McCurdy-McKinnon, & Feusner, 2017). Despite this clear distinction between remission and recovery, these terms are often utilised interchangeably (Bardone-Cone et al., 2018). Therefore, an agreed upon standardised definition of both remission and recovery from EDs is needed (Wade & Lock, 2019) as recovery (rather than remission) is often considered the end-goal for those with an eating disorder (Bardone-Cone et al., 2018).

Achieving full recovery is possible for those recovering from an ED (Bardone-Cone et al., 2010). However, 30% of people with AN and 20% of those with BN in the UK will not recover from their respective illnesses (Malson et al., 2011). Arguably, the uncertainty around ED recovery endpoints supports the notion that ED recovery is not linear and is multifaceted (Dawson, Rhodes, & Touyz, 2014; Kenny, Boyle, & Lewis, 2019). It is, important to note that opinions on ED recovery differ depending on where the person with disordered eating is in their recovery (e.g., people are less likely to discuss recovery when they are relapsing or when people are contemplating recovery, they are more likely to be ambivalent towards recovery; Keski-Rahkonen & Tozzi, 2005). Consequently, it could be argued that current clinical concepts may not be truly reflective of real-world experiences and need further exploration and development (De Young et al., 2020).

The DSM-V (American Psychiatric Association, 2013) definitions of ED recovery requires improvements in both physical and psychological dimensions of the eating disorder to achieve full remission. However, physical improvements are still considered by many clinicians and psychologists to be the leading indicators of successful progression to recovery (Darcy et al., 2010). However, those in recovery have highlighted that psychological factors (i.e., self-esteem no longer being tied to weight; no longer being an extreme perfectionist) were just as important as physical changes to their recovery success (Noordenbos & Seubring, 2006). Therefore, focusing on

ED symptomology change alone is not effective in representing ED recovery, as it may only represent one facet of the remission/recovery (Tomba, Tecuta, Crocetti, Squarcio, & Tomei, 2019). Thus, despite claims that an effective definition of recovery must involve psychological aspects, the emphasis remains on the reduction/elimination of behavioural aspects of the eating disorder, rather than on psychological and emotional improvement (Bowlby et al., 2015). To effectively understand what ED recovery is, key elements of physical, psychological, and social recovery in relation to disordered eating recovery will be discussed below.

1.3.2. Physical and psychological recovery from disordered eating

Physical recovery (e.g., weight restoration for AN) is more commonly experienced initially rather than after an absence of psychological symptoms (Castro, Gila, Puig, Rodriguez, & Toro, 2004). This contradicts the DSM-V definition of partial remission (for AN), which states that psychological recovery is experienced before weight restoration (American Psychiatric Association, 2013). Arguably, achieving physical recovery before psychological recovery should be expected, as behavioural changes (and weight restoration for AN) are often central elements of treatment and the indication of treatment success (Kaplan et al., 2009). The focus on regulating eating behaviours aims to restore healthier weights, however, it may not be completely effective in reducing the importance of the body in the minds of patients (Hay et al., 2014). There can be a dissatisfaction with treatment that is perceived as being overly concerned and focused on food (Rance, Moller, & Clarke, 2017). Intensive treatment programs for AN can successfully restore patients to a healthy weight, but any reductions in psychological symptoms are not always sustained long-term (Federici and Kaplan, 2008). Additionally, research has concluded that weight was not considered a defining criterion for disordered eating recovery by people in recovery (Emanuelli et al., 2012; Stockford, Stenfert, Kroese, Beesley, & Leung, 2019). This suggests a more comprehensive understanding of ED recovery is needed, as current research and treatment programs have yet to successfully reduce relapse rates (Bowlby et al, 2015).

Seeing improvements in behavioural symptoms during the early stages of treatment (i.e., reduction in binge eating, dietary changes and weight gain) is often regarded as clinically meaningful steps to recovery (Nazar et al., 2017). Reportedly changes to disordered eating behaviours are one of the reasons behind diagnostic instability in EDs (Milos et al., 2005), although there is a lack of clarity regarding the specifics behind diagnostic stability (Milos, Baur, Muehlebach, 2013). As such, it could be argued that the universal disordered eating pathology centring around the over-evaluation of weight and body shape is behind this diagnostic instability (Fairburn et al., 2003), thus reinforcing the need to address the psychological recovery as well as physical recovery.

It could be argued that although the intense focus on the physical aspects of disordered eating can be negative for PWEDs, it is essential to target the behaviours as these could be being utilised as maladaptive coping mechanisms (Federici & Kaplan, 2008). As such, it is important to address these coping mechanisms to develop healthier coping strategies and target the underlying concerns that led to the use of disordered eating (Wagener & Much, 2010). By addressing these maladaptive coping mechanisms, disordered eating psychological symptoms can be targeted. However, focusing on a purely physical recovery is inappropriate in the assessment of full recovery. It could point to physical recovery being an important part of the recovery which is an ongoing process involving other important components (Bohrer, Foye, & Jewell, 2020). Therefore, focusing on the physical and behavioural changes is inappropriate in the assessment of full disordered recovery. As such, researchers have argued for the inclusion of psychological, social, and emotional functioning, along with quality of life to comprehensively understand disordered eating recovery (De Vos et al., 2017).

Clinicians, researchers and PWEDs agree that psychological recovery is a crucial part of recovery (Noordenbos, 2011, Noordenbos & Seubring, 2006, Vanderlinden, Buis, Pieters, & Probst, 2007). It has also been suggested that despite the acknowledgement that addressing psychological aspects of disordered eating is important, they are not as important as behavioural issues (Federici & Kaplan, 2008). PWED experiences of recovery highlight that once physical

symptoms of disordered eating are nearing remission, the challenge becomes to battle the psychological symptoms (Pettersen, Thune-Larsen, Wynn, & Rosenvinge, 2013). As such, PWEDs may not be effectively prepared leave treatment if it has not addressed the underlying psychological struggles (Federici & Kaplan, 2008). Therefore, suggesting that recovery is seen as an ongoing process (Bohrer, Foye, & Jewell, 2020). One of the factors intertwined with the longevity of disordered eating recovery is psychological comorbidity (e.g., anxiety and depression) which is thought to be a considerable hinderance to disordered eating recovery (Keski-Rahkonen et al., 2014). Reportedly those with chronic disordered eating experience higher levels of comorbidity (e.g., anxiety and depression) which negatively impacts recovery (Herpertz-Dahlmann et al., 2001). As the focus is primarily on physical and psychological recovery, it follows that comorbid symptoms can continue to present as an issue (Bardone-Cone et al., 2018). Full recovery (i.e., both psychological and physical recovery) has also been associated with recovery from comorbidity, suggesting that full recovery also incorporated the recovery of all other comorbid symptoms (Keshishian et al., 2019). As such, this additional component of psychological comorbidity should be utilised when exploring disordered eating recovery (Slof-Op't Landt, Dingemans, de la Torre Y Rivas, & van Furth, 2019).

Through the work discussed within this section it can be argued that to effectively achieve full recovery from disordered eating, both the physical and psychological symptoms of disordered eating need to be addressed (Bohrer et al., 2020). As highlighted in section 1.2.4, disordered eating is also associated with social factors, such as social functioning, interpersonal relationships, and social identities (Harrison et al., 2014; Ison & Kent, 2010; Patel et al., 2016; Schmidt & Treasure, 2006; Treasure et al., 2020; Treasure & Schmidt, 2013). As these social features have been highlighted as central elements that can put people at risk of developing and maintaining disordered eating, it is important to understand how they are also associated with recovery (Noordenbos & Seubring, 2006). The desire to reintegrate into a social world was one of the key motivators behind recovery (Pettersen & Rosevinge, 2010). Therefore, the process of social recovery must also be discussed when attempting to establish disordered eating recovery.

1.3.3. Social recovery from disordered eating

As discussed in section 1.2.4, social factors are associated with disordered eating development and maintenance (i.e., interpersonal difficulties; Carter, Kelly, & Norwood, 2012, social comparison; Tiggemann, 2002; social functioning; Harrison, Mountford, & Tchanturia, 2014). However, they are not considered part of the diagnostic criteria of clinical EDs (Patel et al., 2016). Social recovery is an additional aspect to explore when looking to define disordered eating recovery (Darcy et al., 2010). Research has highlighted that social networks (a collection of close others) are smaller for those who have a history of disordered eating, even those who appear recovered (Striegel-Moore, Seeley, & Lewinsohn, 2003). The process of inpatient treatment has direct implications for the social world of PWEDs, as entering into inpatient treatment interrupts schooling, work, and social activities (Vanderlinden et al., 2007). Therefore, as with the physical and psychological symptoms of disordered eating which both need to be effectively addressed to target full recovery, social factors also need to be addressed to allow social reintegration (Pettersen & Rosenvinge, 2010).

Feelings of disconnect from others is a primary factor that can hinder disordered eating recovery (Federici & Kaplan, 2008). Through feelings of shame and believing that others would not understand the disordered eating (i.e., treatment teams, family, and friends, social relationships can be limited throughout recovery (Pettersen, Wallin, & Björk, 2016). A lack of social relationships could have negative implications for recovery (Bardone-Cone et al., 2010). Beliefs that others will mis-understand them, PWEDs choose to isolate themselves; this is especially true for males (Robinson, Mountford, & Perlinger, 2013). In turn this reduces access to social support. Therefore, feeling that others understand disordered eating is important for recovery (Dawson, Rhodes, & Touyz, 2014). Through improvements to interpersonal relationships, people seeking recovery will have access to important social resources, which can aid social adjustment and recovery efforts (i.e., social support, Rorty, Yager, Buckwalter, & Rossotto, 1998). It has been suggested that the role of social support be explored to better understand the

importance of social relationships within disordered eating social recovery (Bardone-Cone et al., 2010).

Social support has been identified as key to successful disordered eating recovery (Akey, Rintamaki, & Kane, 2013; Lindstedt, Neander, Kjellin, & Gustafsson, 2018). People who have recovered from disordered eating are a useful source of social support as they show that recovery is possible (Ison & Kent, 2010; Linville et al., 2012). This support and understanding could aid treatment success in moving away from an ED identity (Ison & Kent, 2010). The perception of social support as effective depends on the source of the support. Many feel ill-equipped to effectively support someone with their recovery and can lead to well-intentioned efforts which end up being unhelpful (Brown & Geller, 2007; Linville et al., 2012). There is clearly a complex relationship between social support and disordered eating recovery that needs addressing further: one aims of this current research.

Social support has positive associations with disordered eating recovery, but some people report barriers to seeking support, one of which is stigma (Hackler, Vogel, & Wade, 2010). Stigma is reported for general mental health concerns, however, people with disordered eating consider their illness to be highly stigmatised (Akey, Rintamaki, & Kane, 2012). Research suggests that disordered eating stigma revolves around perceptions that PWEDs are personally responsible for their disorder, attention seeking, and that disordered eating should be easy to overcome (Griffiths, Mond, Murray, & Touyz, 2014). Experiences of disordered eating related stigma are associated with greater ED symptomology due to social withdrawal (Griffiths, Mitchison, Murray, Mond, & Bastian, 2018). Due to fear of negative evaluation from others, some PWEDs choose not to disclose their disordered eating (Williams, Russell-Mayhew, & Ireland, 2018), reducing the availability of social support. The role of interpersonal relationships, social stigma, and social support thus highlight the importance of social relationships for people seeking disordered eating recovery.

Although the work presented in this section highlighted that there are key social factors in disordered eating recovery, it is rarely thought of within clinical conceptions of disordered eating recovery (Patel et al., 2016). It could be argued that social recovery should be as important as physical and psychological recovery. As definitions of disordered eating recovery have changed overtime, from purely focusing on the physical attributes of disordered eating to the inclusion of psychological recovery, then future conceptions of recovery could progress by including aspects of social recovery. However, to advance the definition of recovery there needs to be more research into the role of social processes (e.g., social support) in disordered eating recovery. Currently, there is a lack of understanding regarding how and why social processes have an influential role in disordered eating (from development into recovery). As discussed in section 1.2.4, social identities can influence the maintenance and development of disordered eating (Giles 2006; Ison & Kent, 2010; Rich 2006), but there is less understanding of the role of social identities within disordered eating recovery. Through the application of the social identity approach framework, not only could the understanding of social identities in disordered eating recovery be developed, but it could also provide the theoretical developments needed to provide a strong rationale for the inclusion of social recovery as an additional part of disordered eating recovery definition.

Arguably, researchers are advocating for the inclusion of a social component to disordered eating recovery (De Vos et al., 2017). Current perspectives on disordered eating recovery often take an individualistic approach that has been considered reductionist in nature (Harris & Steele, 2013). Disordered eating not only impacts the PWED and their interpersonal relationships, but it also changes the dynamic of their social world (e.g., disordered eating leading to negative with others, such as friends, which results in a reduced social world; Leonidas & Antonio dos Santos, 2014). The social identity approach would address this concern, as one of the central elements of this framework is the acknowledgement that health concerns do not happen in isolation and impact more than the individual (Hillege, Beale, & McMaster, 2006). Disordered eating recovery research has utilised many of the core social identity approach constructs (i.e., social support; Lindstedt et al., 2018, social stigma; Griffiths et al., 2018, and social comparisons; Eisenberg et al.,

2006), but lacks research exploring these together. Therefore, the social identity approach is a theoretical framework by which wider social processes can be explored as social identity approach accounts for social factors which are not always explored within disordered eating recovery (e.g., social context; Cruwys et al., 2016). Social context is important to effectively understand the other core social identity approach components (Tajfel & Turner 1979). Therefore, there is a rationale for utilising the social identity approach to explore disordered eating recovery as it not only explores the important social constructs discussed within this section but their relationship with social groups those in disordered eating recovery belong to. As highlighted within this chapter, social groups (e.g., family and friends) can provide effective social support which can help people seeking disordered eating recovery (Ison & Kent, 2010; Leonidas & Dos Santos, 2014). However, this is not always the case, as some family and friends can be perceived as unsupportive by the person seeking recovery (Linville et al., 2012). Thus, further exploration into how and why social groups can be supportive or unsupportive within disordered eating recovery is needed to provide a comprehensive understanding of the role social groups play and the social resources these groups provide people recovering from disordered eating.

The understanding of social identities is limited in disordered eating recovery literature. However, researchers have explored the people contained within the social networks of people with disordered eating (Tiller et al., 1997). The Social Identity Approach (SIA) extends social networks by not exploring the people within the network but the social groups in social networks (Best, Haslam et al., 2016). Investigating social groups as opposed to people within social networks is important as people can derive a strong sense of self from their groups, which is distinct from their personal identity (Tajfel & Turner, 1979). When these groups become internalised as part of the self, the group can provide psychological resources, such as social support (Haslam, Reicher & Levine, 2012). As such, the SIA can provide an alternative understanding of the social context around disordered eating recovery. Research has begun within this area but is still in the early stages and to date, has mainly focused on peer recovery groups. A route many people with disordered eating take is to connect with others with disorder

eating (Dimitropoulos, Freeman, Muskat, Domingo, & McCallum, 2016). Disordered eating research has focused on social relationships on an interpersonal level (e.g., listing individual people that provide support; Bodell, Smith, Holm-Denoma, Gordon, & Joiner, 2011). However, the connection with similar others (all having disordered eating) often occurs within communities/ groups of PWEDs (Wang, Brede, Ianni, & Mentzakis, 2018). Through interactions with others like them, people can find a safe space where they are less likely to be judged and are able to avoid ED-related stigma (Yeshua-Katz, 2015). Additionally, these communities are considered a source of social support for their members (Eichhorn, 2008). Arguably, through these communities' people have a sense of belonging, and commonality with other group members; aspects they may not experience within other groups (e.g., family and friends). It is argued here that the social identity approach is an ideal theoretical framework within which the impact of social groups (both peer recovery groups and non-ED based groups, such as family and friends) for people with disordered eating can be understood.

As highlighted earlier in this chapter disordered eating is concerned with identity issues, as disordered eating often becomes integral to self-definition (Stanghellini et al., 2012). As such, it is thought identity change is a necessary component of recovery, by which an identity is developed independent of the disordered eating (Bulik & Kendler, 2000). Recovery from disordered eating is thought to involve a process of self-discovery where people seeking recovery re-establish their identity and place within their social world (Weaver, Wuest, Ciliska, 2005). Again, this understanding of identity is from an individualistic perspective, how the disordered eating forms part of the PWED's personal identity. There are other identities that can be important components of a person's sense of self, but these are formed through belonging to social groups (Turner, 1982). It is thought that by fostering a collective illness identity, based on disordered eating, can reinforce the disordered eating as personal self-definition (Koski, 2014). It is also reported that a shared recovery identity can be formed and through internalisation of the collective characteristics of the group serve as a source of self-definition (Best, Beckwith et al., 2016). As such, it can be claimed that social groups can influence self-definition and need further

exploration. The understanding of identification with social groups is considerably limited within the disordered eating context, however, some groups have been identified as central to the recovery process (e.g., family; Leonidas & Dos Santos, 2014, 2017, and recovery peers; Ison & Kent, 2010). Despite research claiming that social groups are an important resource within disordered eating (from disordered eating developing to recovery), the underlying factors of how and why these groups are important has yet to be established. Within the social identity approach identification with a group is key in group members accessing the health benefits (e.g., social support, social connectedness, a sense of meaning, and resilience) afforded to them through their identification (Haslam et al., 2018). Arguably, it is important to understand the role of social identity within disordered eating recovery to establish what aspects of group memberships are important to recovery. Therefore, utilising the social identity approach could address the lack of understanding regarding why social identities are important for disordered eating, which is one of the main aims of this thesis.

1.4. Chapter summary

Disordered eating can be understood as a spectrum that encompasses everything from sub-clinical to clinical EDs (Cruwys et al., 2016) and there are differences along the spectrum of disordered eating that distinguish the different levels of disordered eating (Papathomas et al., 2018). This chapter provided the rationale for utilising this spectrum of disordered eating in this thesis has been discussed. There have been a variety of attempts to define disordered eating recovery, this has changed overtime from mainly focusing on the physical attributes to the inclusion of psychological symptoms (Wade & Lock, 2019). Arguably, without a concrete definition of disordered eating recovery, researchers are unable to establish meaningful comparisons across studies regarding recovery rates, treatment effectiveness, and relapse rates (Bardone-Cone et al., 2018). Recently, there have been calls to include social factors into the definition of disordered eating recovery (De Vos et al., 2017). A variety of social factors have been explored in relation to disordered eating recovery (i.e., social support; Linville et al., 2012, social stigma; Griffiths et al.,

2018), but there is a lack of understanding regarding how and why these social factors, specifically social relationships, are important for disordered eating recovery (i.e., the role of social groups and the social support they provide). Further exploration into the social factors involved in disordered eating recovery could provide additional support for the inclusion of them in the definition of disordered eating recovery. Utilising the social identity approach to investigate the social factors discussed throughout this chapter can not only address the inclusion of social recovery as a component of disordered eating recovery, but also develop an understanding of how and why social factors are important. However, before the relationship between social identities and disordered eating recovery can be explored, the main aim of this thesis, the social identity approach needs to be discussed to further understand how the social identity approach can align with disordered eating recovery and thus where this thesis fits within that approach too.

2. A Review of The Social Identity Approach Literature

2.1. Chapter overview

As highlighted in the previous chapter, there are social factors that are important for disordered eating recovery (social relationships; Ison & Kent, 2010; Leonidas & Dos Santos, 2014, 2017, social support; Linville et al., 2012, social stigma; Griffiths et al., 2018). Consequently, there have been calls for greater acknowledgement of social recovery as an important element of disordered eating recovery (De Vos et al., 2017). Initial arguments for the utilisation of the social identity approach to comprehensively address the social factors which are reportedly involved in disordered eating were made in the previous chapter. However, before addressing the relationship between social identities and disordered eating recovery, the main aim of this research, an in-depth exploration of the social identity approach is needed to support the claims that the social identity approach is appropriate to help understand social elements of disordered eating recovery. The aim of this chapter is to introduce, define the Social Identity Approach, and highlight the elements that are relevant for the current research. Ultimately, this will lead to the establishment of a clear gap in existing knowledge regarding a lack of social identity-related disordered eating research: a gap that the present thesis is designed to address. As such, this chapter will present the Social Identity Approach which encompasses both Social Identity Theory (Tajfel & Turner, 1979) and Self-Categorisation Theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

The Social Identity Approach has been applied to many domains, but the most relevant of these for this thesis is the Social Identity Approach to Health (Haslam, Jetten, Cruwys, Dingle, & Haslam, 2018). Within the Social Identity Approach to Health, a central topic is the role of social identities in life changes, which led to the development of the Social Identity Model of Identity Change (SIMIC; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009). Through work on the relationship between social identities and life changes, specifically recovery, researchers devised

the Social Identity Model of Recovery (SIMOR; Best, Beckwith et al., 2016). No work has yet applied these theoretical models to disordered eating recovery, indicating a clear gap in the current research. As highlighted in the previous chapter, social relationships have been highlighted as one of the central elements to disordered eating recovery (Ison & Kent, 2010), but there is a lack of understanding regarding how and why these social relationships are important to recovery. As disordered eating research has utilised key concepts featured in the Social Identity Approach to Health (i.e., social support; Linville et al., 2012; social stigma; O'Connor, McNamara, O'Hara, McNicholas, & McNicholas, 2019) it can be argued that taking a social identity approach to disordered eating recovery is justified.

2.2. What is the Social Identity Approach?

The Social Identity Approach (SIA) is an umbrella term for the combination of two main theories: Social Identity Theory and Self-Categorisation Theory (Hornsey, 2008). The core element of SIA is the process by which people develop social identifications (Haslam et al., 2018). Through joining social groups, people begin to categorise themselves with other members of that group and then distinguish themselves from people who are not part of that group (Tajfel & Turner, 1979). Through this social category shared with other ingroup members an individual can define themselves by that categorisation (Turner et al., 1987). Social Identity Theory (SIT; Tajfel & Turner, 1979) ultimately focuses on people categorising themselves in terms of a group membership in order to determine the meaning of the ingroup through social comparisons with comparable outgroups to differentiate their group positively against outgroups (Tajfel & Turner 1979). A key distinction that must be made is the difference between a social identity and a social category group membership, an individual does not have to identify with a group to hold a membership to the group (Haslam et al., 2018). However, for a social category to become part of the self, identification with that category is needed (Turner, 1982). Thus, within SIA it has been established that social identities are internalised group memberships that define a person's sense of self, but

are dependent on the situational context (Tajfel, 1974). This differs considerably from a 'personal identity', which is a person's internalised sense of individuality (Turner, 1982).

The importance of ingroups and outgroups is continually utilised as part of the SIA to this day (Haslam et al., 2018). SIT was developed to effectively show the social psychological processes associated with intergroup relations. Then to advance SIT and address the neglected understanding of intragroup processes, self-categorisation theory (SCT) was devised (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Initial investigations into intergroup processes established that even in the most stripped-down conditions, where people were randomly assigned to groups, and did not hold preconceived significance to other group members, the conditions were sufficient to induce group behaviour (Tajfel, 1982). Group behaviour is classified as when individual ingroup members interact with other group members based on their group identification (Sherif, 1966). Thus, social identity is understood as belonging to various social groups in addition to an attached emotional significance to the individual of that group memberships (Tajfel, 1974). Indeed, even in minimal group studies, the 'ingroup' was favoured despite there being no benefit to favouring the ingroup (Tajfel & Turner, 1979). These early studies highlighted that for group behaviours to occur, social identity must act as a cognitive mechanism that allows group processes to become possible (Turner, 1982).

Another factor established within SIT was that if a group is perceived as being low in status, its group members will seek to increase their status. Two of the processes stated to change group status were individual mobility and social creativity (Tajfel & Turner, 1979). Individual mobility, also referred to as social mobility, involves low-status group members seeking to leave their stigmatised group to join a high-status group (Tajfel & Turner, 1979). A factor that must be considered when discussing social mobility, is whether the boundaries between social groups are perceived as permeable or impermeable (Ellemers, Spears, & Doosje, 1997). Groups which members can leave/join are considered to be permeable, whereas those that cannot be left/joined are considered to be impermeable (Jackson, Sullivan, Harnish, & Hodge, 1996). The next principle is social creativity, in which ingroup members seek to redefine the social

comparison with outgroups, so the attributes of their group are seen as superior despite the overall make-up of the groups remaining the same (Tajfel & Turner, 1979).

Social mobility and the permeability of group boundaries are important considerations within disordered eating, as people with disordered eating seek to create a positive identity which they can achieve through online disordered eating groups (Rich, 2006). People within disordered eating groups treat outsiders with suspicion, to create clear boundaries to identify the outgroup, and prevent the ingroup being exposed to threats from outgroups (Giles, 2006). It is thought that within the disordered eating community (i.e., a pro-ana group) there are boundaries distinguishing sub-groups that are enforced within this group (e.g., bulimia or anorexia; Giles, 2006), suggesting permeability even within the disordered eating ingroup.

The initial exploration into group membership within SIT focused on intergroup relations, highlighting differences between the ingroup and outgroup (Tajfel, 1982). Intragroup processes (within groups) had yet to be addressed despite being a crucial aspect of social identities. As SIT focused on the psychology of intergroup relations, SCT was devised to address the psychology of intragroup behaviour previously neglected (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). As the self is defined, in part, through social identities, there can be a variety of social categories to draw upon, all of which can influence behaviour (Turner, 1985). However, the salient category within the current reality influences behaviour (Turner, 1985). Salience is underpinned by two core components: the fit of the category (contextually dependent) and readiness to utilise the identity (Oakes, 1987). The salience of social identities is a fluid and dynamic process, as deciding on the ingroup and outgroup within a particular situation depends on which group membership is currently salient (Turner, Oakes, Haslam, & McGarty, 1994). A group membership is most likely to become salient and an individual will self-define themselves as a group member if the group is relevant to the current contextual situation (Oakes, 1987). Not only is context important for the salience of social identities, but a person's readiness to use the identity is also key (Oakes, 1987). Social context refers to the environment a person is surrounded that can change the way they see themselves (e.g., identifying as a mother in some contexts but as a doctor in others; Haslam et al.,

2018). Someone is more likely to identify with, for example, a mental health diagnosis (i.e., depression) if the culture they identify with deems it more socially acceptable to see oneself as depressed (Chang, Jetten, Cruwys, & Haslam, 2017). Members of groups then see themselves as interchangeable with other ingroup members, which is known as 'depersonalisation' (Hornsey, 2008). The process of 'depersonalisation' occurs through the increased salience of a social identity and describes how people begin to see themselves through their social identities, it does not explain when or why salience occurs (Haslam et al., 2018). Thus, establishing the basis for social identity salience is important to effectively understand how people see themselves (Oakes, Turner, & Haslam, 1991).

In addition to social identity salience, another context specific group process is social influence (Turner & Oakes, 1986). Within groups there are hierarchical structures in which there are prototypical group members, who embody what it means to belong to that group, and peripheral members who are not seen as truly representative or central ingroup members (Postmes & Branscombe, 2010). People who are most representative (or most prototypical) of their group are likely to be more influential and can best endorse the norms, values, and beliefs of the group (Postmes & Branscombe, 2010). The most prototypical group members are thought to exert greater influence over other group members due to the perception that they are most representative of the group (Turner, 1985).

Social influence is thought to impact people's health related behaviours and can thus be influenced by their groups (Eisenberg, Toumbourou, Catalano, & Hemphill, 2014). Health decisions can vary depending on the social context and the salient social identity, which influence behaviour (Oyserman, Fryberg, & Yoder, 2007). Thus, in recent decades researchers have developed a wealth of knowledge regarding the relationship between the SIA and health-related problems, the Social Identity Approach to Health, the focus of the next section, is comprehensively covered within The New Psychology of Health (Haslam et al., 2018).

2.3. Exploration of the Social identity Approach to Health

The applicability of the Social Identity Approach to Health (SIAH) (also referred to as the Social Cure perspective) has been extensively researched over the last decade (Haslam, Jetten, Postmes, & Haslam, 2009; Jetten, Haslam, Cruwys, Greenway, Haslam, & Steffens, 2017; Haslam et al., 2018; Wakefield, Bowe, Kellezi, McNamara, & Stevenson, 2019). Early work within the Social Cure focused on how social groups affect the appraisal of stressful situations (Haslam et al., 2018). This work developed from the transactional model of stress, which established two main forms of appraisal: primary and secondary appraisal (Lazarus & Folkman, 1984). Primary appraisal involves an individual assessing whether stimuli they are presented with threatens their well-being (Lazarus & Folkman, 1984). If the stimuli are considered threatening, the individual makes a judgement as to their ability to cope with the threat (i.e., secondary appraisal, Lazarus, & Folkman, 1984). Researchers then utilised this concept of stress appraisal to explore its relevance within social identification and found that stimulus was considered more distressing if it was perceived as threatening to their salient identity (e.g., when identifying as a woman rather than a student perceive attractiveness injuries are more serious; Levine & Reicher, 1996). Through this body of work, it has been established that social identities can have influencing roles on the appraisal of stressful situations that could have negative impacts for health and well-being (Haslam et al., 2018). Thus, providing the basis for the Social Cure research to explore the role of social identities in other areas of health and well-being.

Arguably, the fundamental theoretical insight established through the development of the Social Cure literature is that social identities provide important psychological resources that impact our health and well-being (Greenway, Cruwys, Haslam, & Jetten, 2015; Jetten, Haslam, Haslam, & Dingle, 2014). Social Cure work has utilised the central components of SIA and advanced the knowledge surrounding these principles within a variety of different health and well-being contexts (i.e., addiction; Buckingham & Best, 2016; depression; Cruwys, Haslam, Dingle, Haslam, & Jetten, 2014a, schooling; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009; recovery; Haslam, Holme, Haslam, Iyer, Jetten, & Williams, 2008). One of the key developments

within this field of research is that health and well-being benefits are only experienced when group members identify with the group in question (Haslam et al., 2018). Social Cure literature has highlighted that social identification affords members with access to a variety of psychological resources that mediate the relationship between group identification and health and well-being (e.g., connectedness; Cruwys et al., 2014a, social support; Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005, self-esteem; Jetten et al., 2015). By drawing upon these psychological resources, people are able to cope with life events, which is thought to benefit health and well-being (Cruwys, Dingle, Haslam, Haslam, Jetten, & Morton, 2013).

Social connectedness is a psychological resource provided by social identification (Cruwys et al., 2014a). The process of transforming perceptions of others from being different to the self, to being others who are part of the self through social identification builds a sense of connectedness (Turner, 1985). As a group member begins to define themselves by their membership to a group, they are more likely to seek engagement with other members of the group (Gleibs, Haslam, Jones, Haslam, McNeill, & Connolly, 2011). Perceptions of connectedness feed into what people do, as often these social groups involve collaboration towards a shared goal and in turn develop a sense of purpose (Knight, Haslam, & Haslam, 2010). Through engagement in shared social activities better well-being can be experienced (Haslam et al., 2010). Therefore, social connectedness is an important aspect of life to explore, as being socially isolated can have negative consequences for both physical and psychological health (Courtin & Knapp, 2017). Social connectedness benefits health and well-being, but it is being connected through meaningful social identities that provides the strongest benefits for health (Haslam, Cruwys, Milne, Kan, & Haslam, 2016). Social connectedness is only one of the psychological resources provided through social identification, social support is often linked to social connectedness (Detrie & Lease, 2007; Haslam et al., 2016; Pryce, Moutela, Bunker, & Shaw, 2019).

Social connectedness has an intertwined relationship with social support, through both social connectedness and social support, better well-being can be experienced (Detrie & Lease, 2007). A distinction is often made in Social Cure research between provided and received social support,

both of which have been reported to have a mediating role on the relationship between social identification and well-being (Haslam, Reicher, & Levine, 2012). Research has highlighted that a group member will be more likely to provide support to a fellow ingroup member rather than an outgroup member (e.g., supporting different football clubs; Levine, Prosser, Evans, & Reicher, 2005). Reportedly, identification with social groups is linked with better health due to the ability to provide support to others (Steffens, Jetten, Haslam, Cruwys, & Haslam, 2016).

In addition to providing support, the support group members believe other group members provide them also has a significant role in the positive relationship between social identification and health/well-being (Haslam et al., 2005). The stronger the identification with a group, the greater levels of perceived social support from that group which then predicted greater intention to endorse health behaviours associated with the group (Guan & So, 2016). Reportedly, perceptions of social support has more of an impact on well-being than received support (Sani, 2012). Ultimately, the exchange of social support is associated with positive affect for group members engaging in this support exchange (Oh, Ozkaya, & LaRose, 2014). A "virtuous circle" occurs within social groups: identification with a social group (e.g., family) can positively influence health and well-being; this social identification acts as a foundation for good social relationships among group members; then these social relationships within the group strengthen the identification with the group (Sani, 2012). Through the perception of social connectedness and social support accessed within emotionally meaningful social group memberships, an individual's health and well-being can be positively impacted.

Social identification also has positive implications for self-esteem (Cruwys et al., 2014a). Through group belonging, collective self-esteem associated to that membership is established and leads to positive identity which is linked to higher satisfaction with life (Haslam et al., 2018). Reportedly through the collective self-esteem attached to a group, members will have increased personal self-esteem, (Jetten et al., 2015), suggesting that belonging to a group has benefits for people. It is thought that needs of the individual (e.g., belonging, self-esteem, and meaning) are satisfied by salient social groups (Greenaway et al., 2015; Greenaway, Cruwys, Haslam, & Jetten,

2016). Research has indicated that collective self-esteem predicts psychological well-being even when personal self-esteem is controlled for (Crocker, Luhtanen, Blaine, & Broadnax, 1994). However, research has shown that when identifying with a stigmatised group often members will have low self-esteem (Crabtree et al., 2010). Thus, highlighting that identification can be both positive and negative for group members in terms of their well-being.

Identification with multiple groups is reportedly predictive of better psychological health (Miller, Wakefield, & Sani, 2017). Having access to a variety of groups allows for multiple sources of social support (i.e., emotional, instrumental, and informational support; Haslam et al., 2005). Through the accessibility of different types of support sources, a person can seek out the most effective source of support, depending on the context (Jetten, Haslam, & Haslam, 2012). One of the major developments regarding the relationship between multiple group memberships/identifications and health/ well-being has been the role this relationship has throughout major life transitions (Best, Irving, Collinson, Andersson, & Edwards, 2017; Greenaway et al., 2016; Iyer et al., 2009; Jetten & Pachana, 2012; McNamara et al., 2017; Haslam, Haslam, & Cruwys, 2018; Praharso, Tear & Cruwys, 2017). Researchers have explored the role of social identities as people navigate significant life changes, such as addiction recovery (Best, Irving, Collinson, Andersson, & Edwards, 2017), moving to university (Iyer et al., 2009), and retiring (Steffens et al., 2017), but there is a lack of understanding regarding the role of group memberships as people move through disordered eating recovery (e.g., transitioning from the illness into recovery). As exploring the relationship between social identities and disordered eating recovery is the main aim of this thesis, the work on social identities and other life transitions will be explored in Section 2.5 to indicate the relevance of this thesis with the previous work.

There are contexts within which social group memberships can harm health/well-being or act as a “Social Curse” (Kellezi & Reicher, 2012; Stevenson, McNamara, & Muldoon, 2014). Reportedly, the context of the social identity defines whether the psychological resources from that identity are a cure or curse for the members (Kellezi & Reicher, 2012). While the Social Cure

literature has been extensively researched, the Social Curse perspective has received less attention, as such there is less knowledge regarding when social identities can lead to vulnerability for group members (Wakefield et al., 2019). The Social Curse is linked to the dynamic nature of group boundaries, if a person is no longer seen by others (or no longer see themselves as) as 'one of them', then the group may withhold social support (Kellezi, Bowe, Wakefield, McNamara, & Bosworth, 2019). Thus, when the psychological resources provided by social identities (e.g., social support) are withheld these resources are no longer a beneficial resource of the identity (Kellezi & Reicher, 2012). It is also thought that social groups can unintentionally act as a Social Curse, as the boundaries of their relationship with a person change which negatively impacts the person (e.g., family becoming carers for a family member can alter the persons role within that group; Muldoon, Walsh, Curtain, Crawley, & Kinsella, 2019).

One of the ways social groups can contribute to poor health is when groups support and promote the continuation of unhealthy behaviours in their members (Haslam, Reicher, & Levine, 2012). Also, when the behaviour is the defining characteristic of an ingroup identity (e.g., drinking), high identifiers to that group will resist any information which contradicts the ingroup norms (e.g., rejecting feedback that heavy drinking is negative; Livingstone, Young, & Manstead, 2011). When identifying with a student group, where health promotion is not compatible, commitment to engage in healthy behaviours can be weak (Tarrant & Butler, 2011). However, when priming a national identity in students, health promotion was stronger (i.e., lower intentions towards drinking heavily), supporting the notion that the salient identity can impact on health (Tarrant & Butler, 2011). Additionally, the more that group members identify with the group, the more they were likely to behave in accordance with the group norms even if these are unhealthy (e.g., smoking status; Schofield, Pattison, Hill, & Borland, 2001). Ultimately, it can be argued that identification with groups is not always positive and depending on the composition of a social identity (i.e., beliefs & norms) in combination with the context (e.g., the salient identity), the impact identification can have on health will change (Tarrant, Hagger, & Farrow, 2012).

The second Social Curse route occurs when ingroup members are stigmatised by fellow ingroup members due to their breaking of group norms (Wakefield et al., 2019). Stigmatisation pertains to being perceived and/or responded to because of the stigma one is associated with irrespective of other attributes (Goffman, 1963). It has been argued that when situations violate norms of a social identity group, (e.g., developing a mental health concern) members will attempt to hide this from other group members, as seeking help may not lead to support being provided (Kellezi & Reicher, 2012). Also, if group members highly identify with their group, they can perceive help-seeking for a stigmatised mental health concern, even within ingroup services (e.g., university support services), as a violation of the group's social norms then they are likely to not seek help, to prevent exposing themselves as violating these norms (Kearns, Muldoon, Msetfi, & Surgenor, 2015). Through feelings of shame and being shunned by other group members, a person is likely to blame themselves and subsequently their well-being would suffer (Kellezi & Reicher, 2012).

The interactions of ingroup members (e.g., family) can have both Social Cure and Curse implications, depending on the response to a group member changing (e.g., a family member suffering from an acute brain injury; Muldoon et al., 2019). Reportedly, stigma is an active process, and can change a co-operative intra group interaction (e.g., between service users and providers) into a distressed intergroup one (Stevenson, McNamara, & Muldoon, 2014). Although Social Curse literature is not as wide reaching as Social Cure work, the current research has emphasised that not only can stigma impact intergroup relationships, but it can also be a detrimental process for intragroup relationships. Due to the relevance of both the Social Cure and the Social Curse, this thesis will combine the research and refer to the collective knowledge as the Social Identity Approach to Health (Social Cure). As stigma is a core element of the social curse, the role of stigma on health and well-being through the Social Cure lens warrants further exploration and explanation.

2.3.1. The Social Identity Approach to stigma and health

As mentioned above, stigmatisation is the process of judging someone due to a quality societally deemed different/negative, rather than other qualities they may possess (Goffman, 1963). Initial exploration into stigma established three unique main categories: “various physical deformities”; “blemishes of individual character perceived as weak will” (i.e., mental health concerns, substance abuse, and unemployment, etc.) and finally, “stigma based on group memberships” (e.g., race, nationality, and religion) (Goffman, 1963, p 14). Therefore, stigma is the discrimination and devaluation of others due their membership to an undervalued group within society, irrespective of other skills and qualities the group may possess (Goffman, 1963; Link & Phelan, 2001). As such, it can be argued that stigma is the groundwork that discrimination and prejudice are built (Frost, 2011).

Through exposure to societal stigmatisation (e.g., having a mental health diagnosis) a person can internalise those beliefs and believe they are devalued (e.g., due to their diagnosis; Corrigan & Watson, 2002). As such, not only is stigma experienced through external sources, but stigma can become a self-fulfilling prophecy as the stigmatised behave in ways to confirm and maintain their stigma (Major & O’Brien, 2005). Internalised stigma is the resulting psychological impact of societal stigma on those with mental health illnesses (Ritsher, Otilingam, & Grjales, 2003). People can internalise stigmatising beliefs held by society, and these beliefs become how they then view themselves (West, Yanos, Smith, Roe, & Lysaker, 2011). The internalisation of stigma has been associated with lower self-esteem, quality of life, and increased severity of psychiatric symptoms (Livingston & Boyd, 2010). Experiencing stigma is associated with alienation and social withdrawal (Taft, Ballou, & Keefer, 2013), however, belonging to supportive social relationships can build stigma resistance, and this in turn can reduce the adverse effects of stigma (Couture & Penn, 2003). Stigma resistance is connected to positive health and well-being, including improved symptomology and functioning (Firmin, Luther, Lysaker, Minor, & Salyers, 2016). Even though self-stigma is internally generated, it is a result of social stigmatisation (Frost, 2011). Thus,

exploring how social identities can aid in stigma resistance is important to fully understand social stigma.

Experiencing group-based discrimination can be associated with negative health outcomes (Livingston & Boyd, 2010) that can lead to members distancing themselves from their social world (LeBel, 2008). However, being stigmatised does not necessarily lead to rejection of the stigmatised identity (Ramos, Cassidy, Reicher, & Haslam, 2012), thus group-based discrimination is not always negative. If group members acknowledge their identity is discriminated against, they increasingly identify with this stigmatised group. Through the psychological benefits this identification provides (e.g., social support, feelings of social connectedness and self-esteem), the harmful effects of stigma can be counteracted, thus protecting health and well-being (The rejection-identification model: Branscombe, Schmitt, & Harvey, 1999; Schmitt & Branscombe, 2002). Increased identification with a support group provides increased access to social support, which is linked to increased stigma resistance (Crabtree, Haslam, Postmes, & Haslam, 2010). Arguably, group identification provides a psychological barrier in the face of adversary, that can counteract the negative effects of group-based discrimination (Jetten, Branscombe, Schmitt, & Spears, 2001).

Further exploration into the responses to group-based discrimination has established two core pathways: the identification pathway, and the concealment pathway (Haslam et al., 2018). The identification pathway suggests the experience of group-based discrimination can increase identification with other stigmatised group members, which is associated with collective action and in turn associated with better well-being (Molero, Fuster, Jetten, & Moriano, 2011). Social group memberships can thus turn the trauma of stigma into positive experiences of group cohesion (Tabbah, Chung, & Miranda, 2016). When group members share a social identity, they are able to draw upon the psychological resources provided by that group (Haslam et al., 2018) (highlighted above in section 2.3). Through increased identification with this group, and the social support provided, members can also be protected against the negative effects of discrimination (Ramos, Cassidy, Reicher, & Haslam, 2012). Therefore, although stigma is commonly associated

with discrimination and negative health/well-being, through increased identification and access to psychological resources within this group, group members health and well-being is protected against stigma.

In addition to the identification pathway a concealment pathway has also been proposed as a response to group-based discrimination (Haslam et al., 2018). Not all stigmatised identities are visible; these are known as concealable stigmatised identities (Quinn & Earnshaw, 2013). The concealment pathway describes a situation whereby people who belong to a stigmatised group (e.g., being HIV positive) respond to group-based discrimination by hiding their group membership to protect themselves from discrimination and ultimately protect their well-being (Molero et al., 2011). This ability to conceal a stigmatised group membership could protect members from experiencing prejudice, which could maintain health and well-being (Goffman, 1963). However, long-term concealment has also been associated with negative health consequences (Newheiser & Barreto, 2014). Disordered eating is considered a stigmatised identity and people with disordered eating experience stigma in a variety of settings (e.g., family, healthcare professionals; O'Connor, McNamara, O'Hara, McNicholas, & McNicholas, 2019). Often due to the stigma group members experience there is under-reporting of symptoms (Skårderud, 2007), thus potentially impacting on their health (O'Connor et al., 2019). Non-disclosure of a stigmatised identity due to anticipated stigma also may prevent people from utilising social support (Quinn & Earnshaw, 2011). Thus, it is difficult to decisively claim whether the ability to conceal a stigmatised identity is associated with positive or negative health and well-being.

Another group-based factor to consider in addition to concealing an identity is the permeability of the boundaries between the discriminated ingroup and outgroups (Ellemers, Spears, & Doosje, 1997). The permeability of a group can influence whether members are able to leave the group and engage in social mobility (Tajfel & Turner, 1979). If this option is available to group members it could manage the identity threat posed by being a member of a stigmatised group membership (e.g., having life changing surgery to become part of the majority group; Fernández, Branscombe, Gómez, & Morales, 2012). The stigma attributed to a group with

permeable boundaries can be interpreted as controllable (e.g., it is their own fault they are a victim of discrimination), and an individual may try to leave the group (Ellemers, Knippenberg, & Wilke, 1990). However, when group boundaries are perceived to be impermeable and group relations are stable, group members are more likely to fight the group-based discrimination through social creativity (Jackson et al., 1996). Social creativity involves replacing negative group-based stereotypes with members' own positive definitions of the group (Fernández et al., 2012). Thus, the permeability of group boundaries can have a major impact on how members deal with group-based discrimination (Bettencourt, Charlton, Dorr, & Hume, 2001).

It must be acknowledged that both the option to conceal an identity and the ability to leave a group are all dependent on the type of identity being stigmatised, as not all identities can be concealed (e.g., a physical disability and race) and group members may not be able to leave stigmatised groups (e.g., homosexuality, Haslam et al., 2018). Additionally, members of a concealable stigmatised group (e.g., a mental health concern) may not necessarily wish to conceal their identity and chose the identification pathway (Goffman, 1963). This would enable them to maintain the psychological resources (i.e., social support) from their social group (Haslam et al., 2005). Another factor to consider is that a group could be perceived as permeable by outgroups but in reality, leaving this group may not be sought by ingroup members (Jackson et al., 1996). Recovery from disordered eating is perceived as a challenging prospect and is associated with high relapse rates (Bowlby et al., 2015). Potentially the role of boundaries could be an issue for those who belong to a disordered eating group (a stigmatised identity), as those outside of the disordered eating ingroup could see the boundary between having disordered eating and eating healthily as achievable (e.g., friends and family not understanding the seriousness of disordered eating; Akey, Rintamaki, & Kane, 2013). However, those within the disordered eating ingroup could see leaving that group as incredibly difficult or impossible (e.g., recovery can be seen as unachievable for people with disordered eating; Malson et al., 2011). This suggests a complex relationship between stigma and social identification for people with disordered eating. Therefore, it is important to continue exploring this relationship to better understand how those

who identify with disordered eating respond to the stigma attached to their identity and how this impacts their health and well-being.

2.4. The Social Identity Approach to disordered eating

As highlighted within the section above, discrimination can have adverse effects on health and well-being for members of stigmatised groups (Goffman, 1963; Livingstone & Boyd, 2010). Disordered eating (e.g., anorexia nervosa) can be perceived by the public as being less severe than it is. People who have disordered eating are often misrepresented by outgroups (e.g., those without disordered eating portraying disordered eating as a choice or an attention seeking method), as such, disordered eating can be considered stigmatised (Yeshua-Katz & Martins, 2013). Group-based stigma can have negative implications for the psychological well-being of people with disordered eating (O'Connor et al., 2019). Experiencing weight-based discrimination is associated with disordered eating due to anticipated weight stigma (Hunger, Dodd, & Smith, 2020). Weight-based stigma and criticisms is also associated with the development and maintenance of disordered eating (Abraczinskas, Fisak, & Barnes, 2012; Durso, Latner, & Hayashi, 2012). Exposure to disordered eating stigma leads to greater severity of disordered eating symptoms due to social withdrawal (Griffiths, Mitchison, Murray, Mond, & Bastian, 2018). As disordered eating stigma is associated with greater disordered eating pathology it is though that this stigma can negatively impact the recovery from disordered eating (Foran, O'Donnell, & Muldoon, 2020). This work highlights one of the consequences of disordered eating-based stigma on the health of the stigmatised ingroup members.

As mentioned above, experiencing stigma can lead to internalisation of those beliefs and lead to self-stigma (Livingston & Boyd, 2010). Self-stigma by those identifying with disordered eating has been linked with poorer help-seeking intentions (Hackler, Vogel, & Wade, 2010). Perceived stigma and judgement has also been expected from health professionals: another barrier between people with disordered eating and accessing treatment (Evans et al., 2011). Feelings of

shame due the stigmatised nature of disordered eating also acts as a barrier to help-seeking (Hepworth & Paxon, 2007). Thus, societal stigma surrounding disordered eating could lead to under-reporting of symptom severity (Skårderud, 2007), as people with disordered eating hold poor attitudes towards treatment (e.g., fewer benefits but greater risks of treatment; Hackler et al., 2010). Additionally, stigma resistance can have positive implications for people with disordered eating (e.g., less disordered eating symptoms, higher self-esteem, and being more positive about help-seeking: Griffiths, Mond, Murray, Thornton, & Touyz, 2015). Therefore, although stigma can have negative consequences for people with disordered eating, if social stigma is resisted it can be beneficial for health and well-being.

As stigma and shame are considered interlinked (Hepworth & Paxon, 2007), arguably stigmatised people will seek to conceal their disordered eating from those who do not have disordered eating (i.e., family; Reyes-Rodriguez, Ramirez, Davis, Patrice, & Bulik, 2013). Disclosure is reportedly a struggle for people with disordered eating (Becker, Grinspoon, Klibanski, & Herzog, 1999), but there is little research on this topic (Williams et al., 2018). People who were symptomatic and at high-risk of Bulimia Nervosa were most likely not to disclose their disordered eating compared, to low-risk people (Mond et al., 2010). Concealment of disordered eating was also engaged in to protect the social relationships directly impacted by their disordered eating (Pettersen, Rosenvinge, & Ytterhus, 2008). Engaging in concealment of a stigmatised aspect of the self could alleviate the immediate negative risks associated with stigmatisation (i.e., negative evaluation), however, it can also lead to more disordered eating associated thoughts (Smart & Wenger, 1999).

Additionally, through concealment of a stigmatised identity social resources can be difficult to access (e.g., social support; Smart & Wegner, 1999). Social support is one of the important resources provided by social groups that can be utilised to aid coping with stigmatisation, as discussed above (Couture & Penn, 2003). Disclosure of disordered eating can also improve social relationships by leading them to be more open (Pettersen et al., 2008). Thus, the decision to disclose a concealable stigmatised identity (e.g., disordered eating) is complex and could have

social implications (O'Connor et al., 2019). However, the interaction between stigma, concealment and support could vary dependent on the identity in question.

The role played by social relationships in the (development of and) recovery from disordered eating are still commonly explored from an individualistic perspective (Cruwys, Platow, Reiger, Byrne, & Haslam, 2016). To effectively address this gap in the knowledge the Situated Identity Enactment Model (SIE: Cruwys et al., 2016) was devised. Within the SIE model, emphasis is placed on three social psychological features that determine eating behaviour: social norms, social context, and social identity. Although each of these social psychological points have been highlighted above (sections 2.2 & 2.3) as important components within Social Cure (Cruwys, Haslam, Fox, & McMahon, 2015; Jetten et al., 2017; Tajfel, 1974), they had yet to be utilised collectively to explain eating behaviour. Ultimately, the SIE proposes a process by which social norms, social context, and social identity all work together to determine eating behaviours. The SIE model specifies that the social context of a situation surrounding eating provides cues to both social identities and social norms. The social identity that becomes salient leads to the enactment of ingroup norms that then guide eating behaviours (Cruwys et al.,2016). The three core elements of the SIE model will be discussed in more detail to illustrate how Social Cure concepts have been applied to eating behaviours so far.

The first element of the SIE is social norms. As discussed in Section 2.2, social norms have an important role within social identities, and can guide social influence (Eisenberg et al., 2014; McDonald & Christian, 2015). Social norms (Herman & Polivy, 2005). It is thought that social norms surrounding thinness have an influence on disordered eating (Forney & Ward, 2013), supporting the need to include social norms within SIE. Research into eating behaviours has highlighted that identification with a group that has unhealthy behaviours as normative increases the likelihood of engaging in unhealthy eating behaviours (Louis, Davies, Smith, & Terry, 2007). Through participation in ingroup normative behaviour both group members and the group benefit (Louis, Taylor, Douglas, 2005), which could reaffirm identification with the group. As such, it is appropriate to expect these same normative influences to exist within the disordered eating

context (Smith, Louis, & Tarrant, 2017). Beliefs surrounding dieting and weight-based teasing within friendship groups can predict eating behaviours (Lieberman, Gauvin, Bukowski, & White, 2001; Paxton, Eisenberg, & Neumark-Sztainer, 2006). Within an ED prevention program, group members gradually reduced their disordered eating behaviours and thoughts as normative change occurred though the program (e.g., peers arguing against disordered eating thoughts; Cruwys, Haslam, Fox, & McMahon, 2015). However, social norms alone cannot explain when, where, and whose normative influence will guide group members' behaviours. By combining social norms with social identities and social context within the SIE, Cruwys, and colleagues (2016) were able to produce a comprehensive account of the role of Social Cure processes in eating behaviour. As such, it is necessary to explore the next element of the SIE: social identity.

The second aspect of the SIE is social identity. As has been highlighted throughout this chapter thus far, social identities are important psychological resources which affecting thinking and behaviour (Greenway et al., 2015). Social identities can play an important role within disordered eating, as they determine which norms will influence behaviour (Cruwys et al., 2016). Through witnessing others' eating behaviours, modelling of these behaviours will occur, but only when the person eating is seen as a fellow ingroup member (Cruwys et al., 2012). When considered an outgroup member, there will be no modelling of eating behaviours, suggesting that social identities are a mechanism by which eating behaviours can be influenced (Cruwys et al., 2012). Thus, depending on which social identity is salient will impact how much normative influence is experienced towards eating behaviours (Cruwys, Bevelander, & Hemands, 2015). Therefore, the salient social identity within a particular context will guide how eating behaviours will be influenced by the norms of this salient identity (Cruwys et al., 2012). As such, not only are social norms and social identity important in eating behaviours, but so is social context.

The final element of the SIE is social context. Social context dictates when a social identity will most likely be salient for someone, thereby influencing the relevance of social identities and subsequent eating behaviour (Cruwys et al., 2016). If a person is primed within a certain setting to utilise their disordered eating identity, they are more likely to categorise themselves in terms of

that identity (Haslam et al., 2016). Within these 'unhealthy' groups, the behaviours endorsed by the group become infused with the identity and engaging in these behaviours allows members to solidify their group membership (Smith, Louis, & Tarrant, 2016). Salience of social norms is also directly influenced by the social context (Cruwys et al., 2016). When someone is around others who are identified as ingroup members, eating behaviour will be modelled on that of the other ingroup member, even if contextually this identity has not previously been associated with eating behaviours (Cruwys et al., 2012). An individual's capacity to maintain eating behaviours over time is influenced by social norms and not just the salience of an identity (Haslam et al., 2018). Thus, the SIE suggests that the combination of group norms, group identification and context can impact eating behaviours (Cruwys et al., 2016).

As discussed throughout this chapter so far, Social Cure researchers have suggested that group identification can impact health behaviours (Haslam et al., 2009). For instance, engaging in disordered eating behaviours (e.g., behaviours associated with AN) can lead to positive comments from other group members regarding weight loss, which can then reinforce the person's engagement with the negative behaviours, as they associate them with positive feedback (Schmidt & Treasure, 2006). It has been suggested that a person's desire to change their eating is not enough to change their behaviours alone (Haslam et al., 2016). However, through the combination of group identification and group support, intention to change behaviours can be established (Guan & So, 2016). It is thought that eating behaviours are influenced by the internalisation of social context and social groups norms (Cruwys et al., 2016). When a person's social identity is based on a salient membership, they are more likely to engage with behaviours that correspond with the group's norms (Wellen, Hogg, & Terry, 1998). Group norms have been reported to influence a variety of health behaviours, especially for those who identify with the salient group (Louis et al., 2017; Tarrant & Butler, 2011; Tarrant et al., 2012). It has also been suggested that people who identify strongly with a group align their eating behaviours to match that group norm as a way to show their commitment to that group (Cruwys et al., 2012). It has

therefore been argued that social identifications have an important role to play in behaviour engagement and endorsement (Livingstone, Young, & Manstead, 2011).

Despite development of the SIE, Social Cure and disordered eating literature is sparse. Exploration of peer groups (i.e., pro-ED groups; Ison & Kent, 2010 and ED-recovery groups; McNamara & Parsons, 2016) has shown that Social Cure is theoretically appropriate within disordered eating context. It is also thought that identification with a recovery identity can improve interactions with other important groups (e.g., family and friends) suggesting that a network of group memberships is beneficial for recovery (Hastings et al., 2016). The role of three social groups in disordered eating recovery have not been explored from a Social Cure perspective yet are considered important for recovery (family; Dimitropoulos, Freeman, Bellai, & Olmsted, 2013, friends; Ison & Kent, 2010, ED-based groups; Yeshua-Katz & Martins, 2013). As such, the relationship between these social identities, support and disordered eating will be detailed below.

Family plays an important role in the development, maintenance, and recovery from disordered eating (Leonidas & Dos Santos, 2014). Family dynamics are reported to influence the development and maintenance of disordered eating (Cooley, Toray, Wang, Valdez, 2008). Family as a social group is reportedly altered due to serious mental illnesses (e.g., disordered eating). Often the typical identity elements of being a family group (e.g., members having a caring role) are reinforced, sometimes bringing the group closer (Acero, Cano-Prous, Castellanos, Martín-Lanas, & Canga-Armayor, 2017). In comparison, friendships have not been investigated to the same extent as family, in terms of their impact on disordered eating, outside of the role of peer influence in adolescence (Lieberman, Gauvin, Bukowski, & White, 2001; Paxton, Eisenberg, & Neumark-Sztainer, 2006). However, findings suggest that through social influence within friendship groups disordered eating can be negatively impacted (Hutchinson & Rapee, 2007). More specifically, listening to others 'fat talk' (the endorsement of the thin ideal) within friendship groups is associated with increased disordered eating. If friends within a friendship group endorsed the same norms they were rated positively, suggesting that friendship groups can have an influencing role in disordered eating (Cruwys, Leverington, & Sheldon, 2016). Disordered

eating research has not always directly explored family and friendships as social groups, but it has established social support (a key Social Cure component) as an important resource provided by family and friends (Leonidas & Dos Santos, 2017).

Family and friend support appears complex, as research has found that people with disordered eating are both satisfied and unsatisfied with the responses to disclosure of disordered eating and the subsequent support (Ison & Kent, 2010; Leonidas & Dos Santos, 2014). Despite experience of family conflict, family support is still considered the main source of social support (Leonidas & Dos Santos, 2014). Despite this, for those above 18 years old, when disclosing disordered eating friends have been reported as the most likely group to be disclosed to in comparison to family members or healthcare professionals (Becker, Thomas, Franko, & Herzogm, 2005). As such, further research is necessary to investigate the relationship between family, friends, social support, and disordered eating. By utilising family and/or friends as a social group, social support can be explored as a mediator on the relationship between identification with family and/or friends and health/well-being. Through application of the Social Cure, the role of support for those in disordered eating recovery could be clarified and provide a clearer insight into how family support is still important to people with disordered eating, even if family groups are not always positive.

Family and friendships can become tense after an individual discloses their disordered eating (Williams et al., 2018). The reactions of family and friends can be both supportive and unhelpful (Ison & Kent, 2010). Therefore, the disclosure of disordered eating can have consequences for the person with disordered eating and their family and friends. Disclosure of disordered eating to family and friends can have negative implications, but there is a lack of research on this. Therefore, to have a better understanding of the relationship between disclosure, family, friends, and disordered eating more research is needed. Finally, as family was found to be the most important source of social support and impacted by social stigma while friends were also found to be a source of support (Leonidas & Dos Santos, 2014) further exploration into the other Social

Cure components (e.g., identification, support, representativeness etc.) is appropriate to advance the knowledge of family as a social group and disordered eating recovery.

Reportedly both family and friends lack a comprehensive understanding of disordered eating and thus, when attempting to provide support they can inadvertently be perceived as unsupportive (Akey, Rintamaki, & Kane, 2013). As such, it can lead the person with disordered eating to seek out support from a peer group (Mulveen & Hepworth, 2006). Arguably, due to membership of a stigmatised identity (e.g., disordered eating), members are likely to draw upon the resources from that group (e.g., social support; Crabtree et al., 2010). Thus, belonging to a peer group (e.g., a pro-ED group or ED recovery-based group) provides access to social and psychological resources (e.g., emotional, and social support; Yeshua-Katz & Martins, 2013). ED-recovery groups will be focused on within section 2.6.

Through the exploration of the Social Curse (refer to Section 2.3), research shows that groups can not only influence our behaviours in positive ways, but also in negative ways, depending on the nature of the group's health-related norms (e.g., attitudes to drinking: Tarrant & Butler, 2011). Within the disordered eating context, the notion that groups can be detrimental for eating behaviours is supported by the exploration of pro-ED groups (Harshbarger, Ahlers-Schmidt, Mayans, Mayans, & Hawkins, 2009). Pro-ED groups are considered highly negative as they are thought to encourage the maintenance of unhealthy attitudes and behaviours surrounding eating (Rodgers, Skowron, & Chabrol, 2011). Outsiders may view a pro-ED group as being full of members that are actively engaging or struggling with their disordered eating; however, this may not be true (Peebles et al.,2012). Within a social identity context, although the norms of these pro-ED groups can often be unhealthy, the shared identity allows ingroup members to feel understood and trust that they can be honest within the confines of the group and not be vilified or discriminated against for their disordered eating (Haas, Irr, Jennings, & Wagner, 2011). Through these pro-ED groups, ingroup members aim to protect themselves from the negative effects of discrimination from outgroups (Giles, 2006); suggesting pro-ED groups are more complex than the societal understanding of them as being inherently negative.

However, as members of these peer groups all have experiences with disordered eating they can act as an important resource by providing effective support to each other and receive support from those who know what they are going through (Ison & Kent, 2010; Ransom, La Guardia, Woody, & Boyd, 2010). Through providing and receiving social support within pro-ED groups, ingroup members can maintain their group membership by actively participating and utilising the group (Gavin, Rodham, & Poyer, 2008). Support from these pro-ED groups can also be provided through encouragement to maintain the illness (Harshbarger et al., 2009) and thus negative to health. This again highlights that group identifications can impact the behaviours of group members, and that this can mean that pro-ED groups detrimentally affect the health of people with disordered (Williams & Riley, 2013).

Membership of a pro-ED group can allow members to continue concealing this identity from outgroup members, whilst benefiting from support within the ingroup (Smith, Wickes, & Underwood, 2015). The experiences shared in these ED-based groups can influence the identity group members develop, either an illness identity or a recovery identity (Riley et al., 2009). This suggests the Social Curse (discussed in Section 2.3), may take place in pro-ED groups: although they validate an inherently unhealthy identity (through the promotion of unhealthy norms and behaviours), they may also represent a safe source of support (Chang & Bazarova, 2016). Therefore, it is important to explore all relevant social identities when aiming to widen our understanding of the Social Cure and Social Curse processes within disordered eating.

A considerable amount of disordered eating research exploring social relationships focuses on them from a personal perspective rather than from a group perspective. However, based on the work in this section, seeking support is intertwined with the salience of an identity; the salient identity within the context will influence which type of support is sought (Jetten et al., 2012). Equally, depending on the group being sought for support, their perception of the person seeking support will influence their likelihood to provide support (e.g., if they are recognised as being a member of the ingroup they are more likely to be supported; Levine et al., 2005). This section has explored core Social Cure components within family, friends, and ED-based groups, however,

there is a gap in the knowledge regarding how these groups fit within the wider social networks of people with disordered eating. Thus, research that investigates the wider social identity networks will further our knowledge about the quality of group memberships held, social support sought through different important groups and how a person with disordered eating or seeking recovery manages their multiple group memberships.

When investigating management of multiple group memberships, Social Cure researchers often explore this over time to understand any changes that may or may not occur to these group memberships (Best, Haslam et al., 2016; Dingle et al., 2015; Miller et al., 2017; Steffens et al., 2016). As such, one of the key developments within the Social Cure literature has been around the health and well-being related implications of life transitions (Best, Beckwith et al., 2016; Iyer et al., 2009; Steffens et al., 2016). However, there is currently no research exploring social groups within the transition of moving from disordered eating into recovery. To address this and explore social groups throughout disordered eating recovery, understanding how researchers currently explore social groups throughout different life transitions is important. As such, the next section will discuss the current understanding of the role played by social groups during life transitions (e.g., addiction recovery: Best, Beckwith et al., 2016; Cruwys et al., 2016, moving to university: Iyer et al., 2009, stroke recovery: Haslam et al., 2008).

2.5. The Social identity approach to life transitions

Life transitions involve a significant event in one's life that involves identity change (e.g., moving cities, starting university, retirement, or being diagnosed with a health condition; Iyer et al., 2009). These life transitions can have both positive and negative implications for our health and well-being (Haslam et al., 2018). Regardless of the reason behind life transitions (e.g., a job promotion or loss of job), they can be utilised as a source of personal growth (Haslam, Jetten, Postmes, & Haslam, 2009). Within the Social Cure, the most prominent understanding of the relationship between life transitions and social identities is reflected in the Social Identity Model

of Identity Change (SIMIC; Iyer et al., 2009). SIMIC is a framework that addresses life transitions and the identity loss that is often experienced through this transition (Iyer et al. ,2009). Life transitions can often be a period of uncertainty which extreme stress and result in changes to group memberships and therefore, life transitions can have negative physical and psychological effects (Haslam et al., 2018). The extent to which a life transition is perceived as stressful is (partially) due to the changes in group memberships (Praharso, Tear, & Cruwys, 2017). More specifically, experiencing a life change can threaten social groups, often leading to identity loss (e.g., losing a work-group identity; Steffens et al., 2016, losing a healthy identity; Haslam et al., 2008).

The identity loss experienced because of a life change can impact the understanding of the self which in turn can have important implications for well-being (Seymour-Smith, Cruwys, Haslam, & Brodribb, 2017). Identity loss could be a by-product of making a positive life change (e.g., recovering from an addiction), losing an identity that has defined the self can cause uncertainty (Hamilton, Levine, & Thurston, 2008). Therefore, experiencing identity change is associated with uncertainty and often requires a period of adjustment to adjust to this identity loss and develop a new sense of self (Haslam et al., 2019). SIMIC posits two pathways through which group memberships support adjustment to transition: an identity gain and an identity maintenance pathway. These occur within the wider landscape of the person's social world, where numerous other group memberships exist (Iyer et al., 2009).

The identity maintenance pathway suggests that the maintenance of group identities that existed prior to transition can protect health and well-being during this change (Jetten & Pachana, 2012). As highlighted in Section 2.3 identifying with multiple groups provides access to a variety of psychological resources (e.g., social support; Jetten et al., 2012) that are beneficial for health and well-being (Miller et al., 2015). Therefore, belonging to multiple social groups prior to a life change can help protect against the negative consequences of a change due to the psychological resources they can access (Steffens et al., 2016). Maintaining social identities facilitates a sense of identity continuity, which is also important for health and well-being (Iyer et al., 2009; Jetten &

Pachana, 2012). Not only does maintenance of group memberships allow access to social psychological resources, but these memberships also provide a successful template for how to develop new identities (Haslam et al., 2008). Thus, the more group memberships held before a life transition, the greater opportunity to maintain those groups and/or develop new ones throughout this transition (Iyer et al., 2009).

Arguably, the benefits of identity maintenance aid the second pathway within SIMIC: the identity gain pathway. This second pathway suggests that gaining a new social identity throughout a life change can aid adjustment to the change (Iyer et al., 2009). Reportedly, gaining a new identity provides a new source of psychological resources (e.g., sense of belonging; Tajfel & Turner, 1979, social support; Haslam et al., 2005). Development of a new identity associated with the transition provides a new source of self-definition by which those going through a life change can view this process as a gain, rather than a loss (Haslam et al., 2009). However, coping with a stressful life transition requires more than belonging to multiple groups and developing new ones. Simply holding multiple group memberships prior to an identity change does not mean that the process of identity change will be dealt with well, these identities must hold significance and be harmonious (Brook, Garcia, & Fleming, 2008). If the new identity being formed through the identity change is not compatible with existing memberships, then well-being can be compromised (Iyer et al., 2009). However, where compatibility between old and new groups exists then a sense of self continuity is experienced and well-being is likely to be protected (Iyer, Jetten, & Tsivrikos, 2008). Thus, SIMIC posits that identity change not only is a process of coping with identity loss and maintaining groups as resources to cope with the identity change, but also identity gain (e.g., gaining a retiree identity, gaining a university student identity, gaining an ED identity). Developing a new identity associated with a new life chapter can protect against negative implications of the identity change (Seymour-Smith et al., 2017). By gaining an identity as part of this identity change process is also associated with increased self-esteem and a sense of belonging (Greenaway et al., 2016). Through gaining new meaningful social identities provides access to new psychological resources (Jetten, Haslam, Haslam, Dingle, & Jones, 2014) and this

can help throughout this period of uncertainty. Developing a new identity associated with a life transition can provide access to new psychological resources, such as social support, to help cope with the transition (e.g., developing a recovery identity can aid recovery efforts; Buckingham, Frings, & Albery, 2013).

These core aspects of SIMIC have been applied to various contexts (e.g., becoming a mother; Seymour-Smith et al., 2017, driving cessation; Jetten & Pachana, 2012, moving to university; Iyer et al., 2009, retirement; Haslam et al., 2019, substance misuse recovery; Best, Beckwith et al., 2016, transitioning from CAMHS to adult mental healthcare settings: McNamara et al., 2017). One of the major extensions of SIMIC, has been the exploration of SIMIC throughout the process of addiction recovery (Best, Beckwith et al., 2016; Frings & Albery, 2015). As there is a lack of research into the role of social identities in disordered eating recovery, the following section will explore the Social Cure developments into recovery to understand the relationship between social identities and recovery.

2.5.1. The Social Identity Approach to recovery

Since the inception of SIMIC and an increased understanding that transitions can be understood a process of social identity change (Iyer et al., 2009), interest has grown into exploring the applicability of SIMIC to different contexts (e.g., addiction recovery: Haslam, Dingle, Best, Mackenzie, & Beckwith, 2016; aging: Jetten & Pachana, 2012; International students: Ng, Haslam, Haslam, & Cruwys, 2018). Work exploring the SIMIC in recent years has focused on recovery, (Best, Irving, Collinson, Andersson, & Edwards, 2017). Recovery is often conceptualised in individualistic terms, acknowledging that a change in identity is necessary but often disregards social identity changes despite claiming social relationships can have an important role within recovery efforts (Best, Beckwith et al., 2016). Thus, there was a need to explore social identities within the recovery context. As highlighted above (section 2.5), the maintenance of group memberships and acquisition of new social identities can help a person through a significant life

change (Haslam et al., 2008; Jetten & Pachana, 2012; Iyer et al., 2009). Within SIMIC the new social identity being acquired must be compatible with the person's existing group memberships (Iyer et al., 2009). Research exploring the applicability of SIMIC within recovery has led to the development of the Social Identity Model of Recovery (SIMOR; Best, Beckwith et al., 2016). More specifically, SIMOR, like SIMIC, depicts a process of social identity change, but SIMOR is designed specifically for people seeking recovery from addiction (e.g., transitioning from a 'using' identity to a recovery identity; Best, Beckwith et al., 2016).

The recovery initiation phase involved in addiction recovery occurs when someone begins their recovery efforts and coincides with their 'using' identity being the most salient identity (Best, Beckwith et al., 2016). Work exploring SIMOR has suggested that the development of a recovery identity is an important part of moving forward in the recovery process (Beckwith et al., 2015; Dingle, Stark, Cruwys, & Best, 2015; Taylor, McNamara, & Frings, 2020). The norms and behaviours endorsed through this 'using' group are associated with the maintenance of, and engagement with addictive and problematic behaviours (Buckingham, Frings, & Albery, 2013). However, as the person continues with their recovery, they begin to increase their contact with recovery-orientated groups. Through the increased engagement with these recovery-orientated groups the person seeking recovery is influenced by the recovery-related norms, and less by the norms of the problematic 'using' identity (Best et al., 2012). As the person recovering enters the recovery maintenance phase (as suggested by SIMOR), the recovery-orientated groups must become more salient in comparison to the former salient 'using' identity (Bathish, Best, Savic, Beckwith, Mackenzie, & Lubman, 2017). Thus, one of the major advances of SIMOR from SIMIC, is acknowledgement that breaking away from groups, which can cause identity loss, is an important part of recovering from addition (Dingle, Stark et al., 2016). More specifically, the identity loss experienced in respective of their former 'using' identity (through this transition) is actually a process of dis-identification from their problematic identities (Best, Beckwith et al., 2016). The process of dis-identification with former 'using' identity is intertwined with the process of identification with a recovery-orientated group.

Additionally, more is involved in recovery than simply an increased identification with a recovery-orientated group, the recovering individual's social identity network must be compatible with this new recovery focused individual (Bathish et al., 2017). Not only is dis-identification with the 'using' group important but ensuring that social groups encompassed within social identity networks are not going to cause identity conflict and are supportive of recovery (e.g., are opposed to their 'using' behaviours) for the individual is also important (Beckwith et al., 2019). Social identities do not occur separately to treatment/recovery efforts, they are often a key motivator in seeking recovery, as such engagement with these social identities should be encouraged (Mawson et al., 2015). Research suggests social identity networks should have more involvement in treatment for addiction recovery, as through increased involvement of these positive groups (e.g., family and friends) there will more sources to promote sobriety (Pettersen et al., 2019). Again, SIMOR advances the social perspective of recovery by highlighting the importance of the social identity network compositions (Best, Beckwith et al., 2016).

Within SIMOR, there is regular reference to a recovery identity being associated with a recovery-orientated group, however there is no exact definition for what groups can support the development of this recovery identity. A recovery-orientated group can be assigned to be any social group (e.g., family and friends) in which recovery efforts are encouraged and supported, which can enable the development of the recovery identity (Best, Beckwith et al., 2016). Engaging in positive interactions with a community in which recovery is supported can strengthen connections between person and recovery community (Bliuc, Best, Iqbal, & Upton, 2017). Non-using/abstinent groups are reported the most important groups recovering people had and reported higher identification with non-using identities (Mawson et al., 2015). Reinforcing the importance of these non-using groups in the recovery process.

However, much research exploring social identities and addiction recovery has utilised recovery peer groups and/or therapeutic communities to establish whether a recovery identity can be beneficial for health and well-being (Beckwith et al., 2019; Best et al., 2014; Dingle et al., 2019; Taylor, McNamara, & Frings, 2020). Exploration of recovery identification of those utilising a

therapeutic community suggests that as the person recovering moves through their recovery inside the community, they transition from a salient using identity to a salient recovery identity (Dingle, Stark et al., 2015). Researchers have suggested this recovery identity is developed through membership of the therapeutic community (Dingle, Cruwys, & Frings, 2015). Additional research suggests that a recovery identity is strongly maintained by engaging with a recovery group (e.g., alcoholics anonymous), without regularly attending meetings this identity becomes meaningless (Frings & Albery, 2015). Through this research it could be argued that not only is developing a recovery identity important, but continuous commitment and engagement with this group is necessary to maintain a sense of recovery identity.

Researchers state that therapeutic communities create a prime setting for people to transition from a 'using' identity to a 'recovery' identity (Best et al., 2014). Context is a central element in the salience of a social identity, the norms internalised, and the behaviours in which someone engages (Cruwys et al., 2016). It could be suggested that therapeutic communities lack addiction related cues that are present in the community, and, as such therapeutic communities are not reflective of everyday life (Dingle et al., 2019). Thus, an argument could be made that by exploring identification with a specific recovery group, the researchers are actually studying the identity attached to this group (e.g., the identification with Alcoholics Anonymous or the specific therapeutic community in question) rather than with recovery itself. Therefore, it has been suggested that future SIAH and recovery work should be utilising community samples rather than clinical populations to explore recovery identification (Bathish et al., 2017). This is therefore an important area of that this current research can address. Specifically, by looking at recovery (albeit disordered eating recovery, rather than substance use recovery) within a community-based sample, rather than focusing on people in a group/environment aimed to encourage recovery, this thesis will help to advance knowledge.

More recent research has begun to explore identification with more generalised recovery (e.g., others in recovery; Bathish et al., 2017; Beckwith et al., 2019; Dingle, Stark, et al., 2015; Dingle et al., 2019). This work has concluded that the development of a recovery identity is

central to the recovery process (Cruwys et al., 2020). This generic recovery identity was also associated with an increased number of non-using groups (Beckwith et al., 2019), suggesting that having non-using groups and a recovery identity are linked. Both identification with a recovery promoting/based group and general recovery identification have been explored there is no explicit understanding and definition of recovery identification. Arguably, to effectively understand the role of recovery identification, a definition of what this recovery identity is, is needed. As such, this current thesis aims to explore what disordered eating recovery means to those going through it and identification with disordered eating recovery for people seeking disordered eating recovery.

A commonality within these social identity models relating to a life transition is the psychological resource of social support and that these recovery-peer groups provide a supportive environment for recovery (Best & Lubman, 2012). Through joining a group in which all members are striving for the same recovery goal a commonality is fostered and improvements in mental health can be experienced by providing a foundation for recovery efforts (Bulic, Best, Iqbal, & Upton, 2017). Through the focus on the role of group therapy for recovery outcomes (provided by therapeutic communities and recovery-peer groups) another social identity change model which revolves around these specific recovery groups has been developed: The Social Identity Model of Cessation Maintenance (SIMCM; Frings & Albery, 2015). Ultimately, SIMCM furthers the understanding of social identities and addiction recovery as it focuses on the dis-identification with an addiction identity and the development of a recovery-peer group (Frings & Albery, 2017). Therapeutic group interventions can aid rejection of the 'using' identity and adoption of a recovery identity (Dingle, Stark, Cruwys, & Best, 2015). SIMCM focuses on the social cognitive processes involved when a social identity is activated in certain contexts, the two main social cognition factors utilised in SIMCM are the complexity and accessibility of the identity (Frings & Albery, 2015).

SIMCM suggests an identity has to be activated to influence the person, this identity must be complex enough to encompass the situation the recovering individual is in, and the identity also

must be accessible (Frings & Albery, 2017). The cognitive constructs that are more complex are sensitive to a wider range of stimuli and thus are more accessible as they are activated by a broader range of environmental cues (e.g., being exposed to beer as a recovering alcoholic and active alcoholic will have different responses: if the active alcoholic identity is activated over the recovering identity the corresponding behaviours activated could be risk behaviours like drinking; Frings, Collins, Long, Pinto, & Albery, 2016). Therefore, SIMCM extends the understanding of social identities and recovery by developing the understanding of how a recovery identification can aid recovery efforts, evidencing that it is more than simply identifying with a recovery group.

Ultimately, the Social Cure perspective of recovery suggests that recovery is intertwined with the social identities maintained throughout recovery efforts (Frings & Albery, 2017). While this research has shed light on the relationship between social identities and recovery, it has mainly been applied within the context of addiction recovery (Bathish et al., 2017; Beckwith et al., 2019; Best, Beckwith et al., 2016; Bliuc et al., 2017; Buckingham et al., 2013; Dingle et al., 2015; Dingle et al., 2019; Frings & Albery, 2017; Mawson et al., 2015; Mawson et al., 2016; Taylor et al., 2020). However, researchers suggest that the theoretical underpinnings of their models (e.g., SIMOR; Best, Beckwith et al., 2016) would be applicable to a variety of other areas (e.g., mental health problems). It can be argued that these processes could be applicable to the disordered eating context, as initial findings suggest that a social identity change is necessary for ED recovery (Ison & Kent, 2010). However, as highlighted within Chapter 1, despite research claiming that social groups are an important resource within disordered eating (from disordered eating developing to recovery), the underlying factors of how and why these groups are important has yet to be established (Giles, 2006, Ison & Kent, 2010, McNamara & Parsons, 2016, Rich, 2006). Thus, it is important to explore the relevance of SIMIC and SIMOR within this thesis to comprehensively establish not only the role of social groups throughout the disordered eating recovery process, but also how and why social groups help/hinder the recovery process. Through this research, the rationale could be developed for the inclusion of social identity factors into the definition of disordered eating recovery.

Before applying the core concepts of SIMOR, which has only been explored in relation to addiction recovery, it is important to explore any similarities and differences between addictions and disordered eating. It has been argued that EDs have various similarities to addictions, especially substance misuse (Brewerton, 2014). A commonality between addictions and EDs is that they are both concealable stigmatised identities (Quinn & Chaudoir, 2009; Reinka, Pan-Weisz, Lawner & Quinn, 2020). Also, in wider society both addictions and EDs are perceived to be conditions that people choose to have, which is incorrect (Brewerton, 2014). Indeed, the belief that EDs and addictions are similar is so strong that various addiction-based models of EDs have been proposed (von Ranson, & Cassin, 2007). Since the addition of binge-eating disorder into the DSM-V (American Psychological Association, 2013), researchers have been exploring 'food addiction', which could be considered a severe form of Binge-eating disorder (Vaz-Leal, Ramos-Fuentes, Rodríguez-Santos, & Álvarez-Mateos, 2017). Despite claims that EDs are actually an addiction, there are key differences between EDs and addictions. For example, dieting is culturally and socially more acceptable than substance misuse (Barbarich-Marsteller, Foltin, & Walsh, 2011). Furthermore, there are differences in the physical symptoms of addiction and EDs. Specifically, according to the DSM-V (American Psychiatric Association, 2013) withdrawal effects are not associated with EDs. Thus, researchers have argued that an addiction model of EDs lacks empirical support (von Ranson & Cassin, 2007). Reportedly, the research into food addiction (which is the main area in which addiction and EDs have been linked) is still too new for any significant claims to be made (Hauck, Cook, & Ellrott, 2020).

Additionally, researchers claim that co-morbidity of EDs and substance misuse disorders is high (Harrop & Marlett, 2010). A review of co-morbidity of EDs and substance use disorders found that the prevalence of any substance use disorder in people with an ED ranged between 7.7% and 21.9% (Bahji et al., 2019). Researchers suggest that the high rates of co-morbidity reported in these clinical samples are artificially high, as people with multiple disorders are more likely to seek treatment and thus be included in clinical samples (Berkson, 1946). It has thus been argued that, in reality, substance misuse is slightly higher in people with EDs than in people without EDs, but

that this difference is not as significant as suggested in clinical samples (von Ranson, & Cassin, 2007).

Ultimately, the researcher acknowledges that due to the complexities throughout the ED and addiction literature there can be arguments made for and against the application of SIMOR to disordered eating recovery. As there is no consensus regarding EDs and addictions it is important to be cautious in making any direct comparisons between the social identity and addiction recovery research and disordered eating recovery. It could be argued that while researchers have suggested these models can be applied to samples with EDs, the clear differences between addiction and EDs means that further research is needed to explore the appropriateness of applying the broader SIAH concepts to disordered eating recovery. Therefore, before exploring the theoretical concepts of SIMOR in disordered eating recovery, a more general exploration of social identities within disordered eating recovery is necessary, which is something that this thesis will address.

2.6. The Social identity Approach to disordered eating recovery

Research into the social identity approach to disordered eating has yielded some initial understandings of how social identities can contribute to the development and maintenance of disordered eating (as focused on in section 2.4; Cruwys et al., 2016; Giles, 2006; Harshbarger, Ahlers-Schmidt, Mayans, Mayans, & Hawkins, 2009; Yeshua-Katz & Martins, 2013). However, there is substantially less research on the role of social identities within disordered eating recovery: a dearth addressed by the present thesis. As discussed throughout Chapter 1 and this current chapter, social support is central to disordered eating recovery (Ison & Kent, 2010; Leonidas & Dos Santos, 2014). Being effectively supported in transitioning from a disordered eating identity to a recovery-based identity could be important for treatment success (Ison & Kent, 2010). Reportedly, support systems (e.g., family and friends) can have a positive influence on recovery from disordered eating (Linville et al., 2012). Research into social support and

disordered eating has highlighted that different groups are important sources of social support (i.e., family; Leonidas & Dos Santos, 2014, and ED-based groups; Yashua-Katz & Martins, 2013). Often social relationships (i.e., family, partner, and friends) are seen as key motivators in recovering from disordered eating (Venturo-Conerly, Wasil, Drier, Lipson, Shingleton, & Weisz, 2020). As such, it has been suggested that there is a need to include social networks (i.e., friends, religious groups & other supportive people) into the recovery process to aid the person recovering by having access to a variety of support (Leonidas & Dos Santos, 2014).

ED-based groups can be pro-recovery; group members can encourage each other to accept their bodies, increase their eating, and seek professional support (Ransom et al., 2010). Further, research suggests that the pro-recovery Twitter community can also be supportive to those seeking disordered eating recovery (Wang, Breder, Ianni, & Mentzajis, 2018). Initial Social Cure and disordered eating recovery research indicates that identity-based support from ED-recovery groups is perceived as better in comparison to other social groups (i.e., friends and family; McNamara & Parsons, 2016). Being a member of ED-related groups can be important for recovery, due to the support and encouragement from other group members it provides (Flynn & Stana, 2012). It has been suggested there is a need for recovery-focused online groups to replicate the support and community that are frequently observed in pro-ED online groups (Aardoom, Dingemans, Boogaard, & Van Furth, 2014).

Researchers have explored the use of group-based interventions to target eating behaviour change (Kristeller, & Wolever, 2010, 2014; Kristeller, Wolever, & Sheets, 2014; Paul-Ebhohimhen, & Avenell, 2009; Swancutt. Tarrant, & Pinkney, 2019). These findings suggest that care delivered through groups could be an effective treatment intervention method (Paul-Ebhohimhen, & Avenell, 2009). It is thought that the social identity of these group-based interventions could be beneficial for people's engagement in the intervention, as well as for the extent to which the intervention leads to them experiencing positive behaviour change (Tarrant et al., 2017). Group-based interventions can effectively support weight loss (Borek, Abraham, Greaves, & Tarrant, 2018). However, these have focused on obesity, and to date no social identity group-based

interventions have been established and explored for disordered eating/eating disorder recovery. Despite the growing literature, there is a need to understand the group processes that underlie the benefits of group interventions (Swancutt et al., 2019). It can be suggested that greater understanding of social identities and social processes associated with disordered eating recovery will progress the research into group interventions in disordered eating recovery.

As highlighted in both Chapter 1 and section 2.4 disordered eating is considered to be intrinsically linked to social factors (i.e., social support, social connectedness, social influence, social stigma), but disordered eating interventions often focus on individualistic outcomes (e.g., gaining weight) at the cost of social outcomes (e.g., developing a recovery identity; Cruwys et al., 2016). As such, social identities are not considered as part of the treatment process for disordered eating (Ison & Kent, 2010). However, research suggests that identification with an ED recovery-orientated group is associated with endorsement of treatment engagement (McNamara & Parsons, 2016). Encouragement to engage and identify with groups that promote recovery could be beneficial for disordered eating recovery, as found with other areas of recovery (e.g., addiction recovery; Bentley et al., 2019; Best, Beckwith et al., 2016; Frings & Albery, 2015). In addition to the inclusion of social identities, support in managing the disordered eating stigma would aid disordered eating recovery (O'Connor et al., 2019). Group based interventions have been effective in developing social identification within a range of other recovery contexts (Cruwys et al., 2014; Haslam et al., 2016; Tarrant et al., 2016). So, it could be argued that inclusion of social identity-based interventions within disordered eating treatments would be beneficial for successful recovery (Ison & Kent, 2010).

Ultimately, there are a variety of ways in which the SIAH could be utilised to improve the lives of people with/in recovery from disordered eating (e.g., preventing the sub-clinical population from becoming clinical, preventing relapse, or 'improving' the extent or speed of recovery). Studies which have applied the SIAH to disordered eating recovery have focused on a number of these areas, including: the transition from disordered eating identity to a recovery-based identity (Ison & Kent, 2010); the importance of social support for recovery (Ison & Kent,

2010; Leonidas & Kent, 2014); motivations for recovery (Venturo-Conerly, 2020); and the disordered eating recovery identity and endorsement of treatment engagement (McNamara & Parsons, 2016). Thus, this thesis could continue to explore any of these areas. However, as Chapter 1 highlighted, there is a lack of consensus on what disordered eating recovery is and the processes by which it occurs (Bardone-Cone et al., 2018; De Vos et al., 2017; Wade & Lock, 2019). Arguably, to continue to develop the knowledge of SIAH and disordered eating recovery, greater understanding of disordered eating recovery is first needed. Therefore, the current programme of research will utilise the SIAH to develop a greater understanding of disordered eating recovery (e.g., achieving and maintaining recovery, and what recovery means) and the processes by which recovery occurs (e.g., the social elements of recovery).

2.7. Chapter summary

This chapter has outlined the Social Cure and focussed specifically on highlighting the Social Cure perspective and elements of the Social Curse within the Social Cure framework. Arguably, the core concept behind the Social Cure perspective is that social identities provide psychological resources (e.g., social support, social connectedness, and self-esteem) which inform the self-concept (Cruwys et al., 2013). The Social Cure has highlighted that identification with a stigmatised group can be seen as negative, but this identification can also provide ingroup members resources to resist stigma and improve their health and well-being (Branscombe et al., 1999; Firmin et al., 2016; Ramos et al., 2012; Tabbah et al., 2016). One of the major developments of the Social Cure is the Social Identity Model of Identity Change, more specifically that life transitions are intertwined with identity change, which has an impact on health and well-being (Iyer et al., 2009). Social identities have an important role for those transitioning through a stressful life event (e.g., stroke recovery: Haslam et al., 2008; addiction recovery: Best, Beckwith et al., 2016; Frings & Albery, 2015). The more group memberships a person possesses, maintains, and gains during a life transition, the better able they are to cope Haslam et al., 2008). While social identities play influential roles in the development and maintenance of disordered eating (Cruwys et al., 2016; Harshbarger et al., 2009; Ison & Kent, 2010; Yashua-Katz & Martins, 2013),

considerably less is known about how social identities could influence disordered eating recovery. Researchers hypothesise that social identities could have an important role to play in initiating recovery efforts (McNamara & Parsons, 2016) and success in treatment (Ison & Kent, 2010). Research into the social identity approach to disordered eating is in its infancy, and many questions remain unanswered, but through this thesis many will be addressed. The next chapter will synthesis the literature discussed throughout these first two chapters, the main aims and objectives of this thesis, and the methods that will be employed to address the aims and objectives.

3. Thesis Rationale and Mixed Methods Approach

3.1. Chapter overview

After reviewing the literature in the previous chapters, this chapter will synthetise the main conclusions from both the disordered eating literature and the Social Identity Approach to Health (Social Cure) literature to provide a rationale for this present research. The main interest of this thesis is to explore the relationship between social identities and disordered eating recovery, as such the aims and objectives targeting more specific elements within the overall research interest will also be presented. The second topic this chapter will cover is the mixed methods approach that will be employed to address the research aims and objectives. The researcher will employ an overall mixed methods approach to the research: an adapted exploratory sequential design. This approach allows for qualitative data to be gathered and analysed first before the quantitative data collection and analysis. The exploratory sequential design was suitable as it begins with a primary investigation using qualitative methods that would provide the necessary in-depth understanding of disordered eating and social groups. This qualitative information would then inform the following quantitative methods which could explore some of the qualitative conclusions in a larger sample. Therefore, the researcher will highlight how the qualitative and quantitative methods will comprehensively target both the thesis objectives and the lack of previous knowledge regarding social identities and disordered eating recovery. The overall aim of this research is to provide a comprehensive understanding of the relationship between social identities and disordered eating recovery.

3.2. Thesis rationale

As discussed throughout Chapter 1, there is a lack of an agreed upon definition of disordered eating recovery (Wade & Lock, 2019). Understandings of disordered eating recovery often focus on the physical and psychological factors (e.g., weight restoration, reduction in binge eating, self-esteem no longer being tied to weight, no longer over-evaluating weight, and body shape), there

have been calls for social factors to be incorporated into a comprehensive definition of disordered eating recovery (De Vos et al., 2017). Explorations into the relevance of social factors (e.g., social support; Linville et al., 2012, social stigma; Griffiths et al., 2018, social relationships; Ison & Kent, 2010), have shown that social elements of disordered eating recovery are important, thus supporting claims for the inclusion of these in a definition of recovery. However, unlike psychological and physical recovery components of disordered eating, there is a lack of understanding on how and why social factors (e.g., social groups) are important for recovery. As such, it could be argued that a comprehensive understanding of social factors and disordered eating recovery, not only exploring the social factors, but establishing how and why social features are important for recovery is needed before any inclusion into a definition. The researcher aims to expand knowledge of disordered eating recovery by understanding of the social factors in the recovery process.

To address the why and how social recovery is an important part of disordered eating recovery, the researcher suggests the application of the Social Cure, as the Social Cure allows for the study of not only important social features, but the underlying processes of how social factors become important for recovery. Social Cure suggests that identification with social groups provides important psychological resources (Cruwys et al., 2013; Greenaway et al., 2015; Haslam et al., 2012; Haslam et al., 2018). One of the important Social Cure developments has been that social identities are an important resource for those going through a significant life change (e.g., addiction recovery: Best, Beckwith et al., 2016; Frings & Albery, 2015, moving to university; Iyer et al., 2009). The maintenance of groups and the development of new groups which are compatible with the life change are both thought to aid health and well-being throughout this transition (e.g., recovery-orientated: Best, Beckwith et al., 2016). Social identities reportedly have an influential role in the development and maintenance of disordered eating (Cruwys et al., 2016; Harshbarger et al., 2009; Ison & Kent, 2010; Yashua-Katz & Martins, 2013), however, less is known about how social identities feature throughout disordered eating recovery. It has been posited that social identities could have an important role in initiating recovery efforts (McNamara & Parsons, 2016)

and aiding successful treatment efforts (Ison & Kent, 2010). As social identities appear not only to be beneficial for health and well-being but also provide group members with access to psychological resources (e.g., social support) which aid health and well-being. Thus, Social Cure could provide the necessary information to understand the how, why, and when social features are important throughout the disordered eating recovery process.

Ultimately, reviewing the relevant literature within the previous chapters highlighted a considerable lack of knowledge regarding the relationship between social identities and disordered eating recovery, especially in comparison to other areas of psychological health (e.g., addiction recovery; Bentley et al., 2019; Buckingham et al, 2013; Frings & Albery, 2015). Researchers have established the understanding that recovery is not a solely individualistic process, and a social process is intertwined with recovery (Best, Beckwith et al., 2016). Despite this, little research has explored social identities and disordered eating recovery (Ison & Kent, 2010, McNamara & Parsons, 2016). These initial findings suggest social identities are important within disordered eating recovery, but there is a lack of understanding regarding the more specific nuances of social identities throughout disordered eating recovery. As such, this thesis aims to address this gap by not only providing greater understanding of how disordered eating recovery can be encouraged and maintained, but also by exploring the role of social identities throughout disordered eating recovery.

3.2.1. Thesis research question and subsequent thesis objective

The overarching research question of this thesis is:

What is the relationship between social identities and disordered eating recovery?

The main objective of this thesis is:

To investigate social identity change throughout disordered eating, with a focus on the process of disordered eating recovery.

Additional objectives to address the overall research question include:

Thesis objective 1: Explore what disordered eating recovery means to those going through this recovery process?

Thesis objective 2: Investigate the composition of social groups/identities and social identity networks throughout disordered eating recovery?

Thesis objective 3: Explore the relationship between social identity changes, disordered eating symptomology and health/well-being over time?

It is important to note that for each of the studies within this thesis there will be individual aims and objectives provided in the relevant chapters. Now that the research aims and objectives have been established, the rest of the chapter will outline the methodological approach that will be undertaken to ensure the research will address these aims and objectives while ultimately answering the overarching research question: What is the relationship between social identities and disordered eating recovery?

3.3. Rationale for a mixed methods approach to explore the relationship between social identities and disordered eating recovery

The main aim of this thesis is to explore the relationship between disordered eating recovery and social identities. Initial investigations have highlighted some social groups that could be beneficial for people seeking ED recovery (e.g., family and friends: Ison & Kent, 2010) and that identification with an ED-recovery group could aid help seeking intentions (McNamara & Parson, 2016). As there is a lack of understanding regarding the nuances of with social groups and their role in disordered eating recovery, it could be argued to develop a thorough understanding, a qualitative in-depth exploration into the relationship is needed (Jackson & Sherriff, 2013). However, an argument could also be made that as initial research has highlighted that social groups could have a positive role in ED recovery (Ison & Kent, 2010; McNamara & Parsons, 2016), quantitatively exploring this relationship on a wide range of people in/seeking disordered eating recovery is also necessary, for the findings to be applicable to as wide a population as possible (Howitt & Crammer, 2016). Having said that, utilising both the in-depth understanding provided through qualitative research and the expansive opportunities of quantitative research in combination, could provide a comprehensive understanding of the topic of interest (Creswell & Clark, 2017).

In addition to effectively addressing a research topic, the combination of mixed methods can enhance the validity of the research and provide an increased level of understanding of the research topic through supplementing one method with another (Morse, 2016). The combination of qualitative and quantitative methods allows for each method to excel in areas the other does not (Edmonds & Kennedy, 2016). For example, using the qualitative data to reveal aspects of the research topic that the quantitative cannot target (e.g., the situational context and rich lived experiences of participants), whilst the quantitative data can provide close ended data which is more generalisable. Therefore, through the combination of qualitative and quantitative techniques, mixed method designs overcome negatives within each analysis while providing more evidence on the research questions than utilising solely quantitative or qualitative methods (Creswell & Clark, 2017).

3.4. Using an adapted exploratory sequential design to investigate the relationship between social identities and disordered eating recovery

The mixed methods approach to this research was an adapted exploratory sequential design (depicted in Figure 3.1). Initially, an exploratory sequential design was planned for this research due to its emphasis on the in-depth exploration of a phenomenon which suits this novel investigation into an under-researched area (Creswell & Clark, 2017). However, through refining the research plan it became evident an exploratory sequential design alone would not best capture the data that could be collected from the planned research. As such, the researcher chose to adapt this methodological approach to suit the research (Figure 3.1). This adapted methodological approach combines a convergent mixed method design and an exploratory sequential design. The researcher believed that this adapted methodological approach would comprehensively explore the Social Cure throughout disordered eating recovery and provide contextual information about disordered eating recovery and social identities (one of the key elements of this thesis).

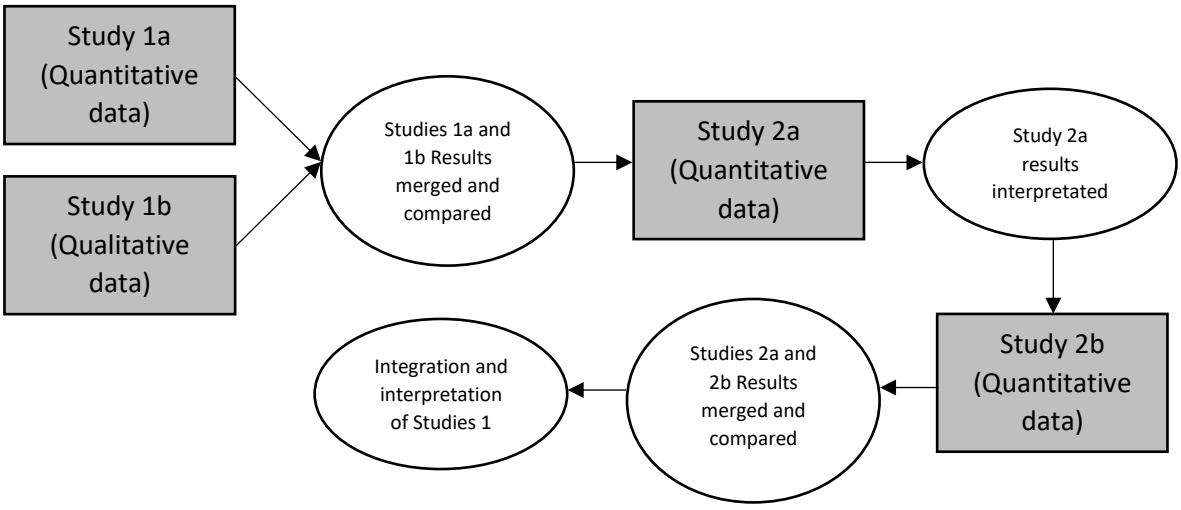

Figure 3. 1 The mixed method design implemented in this thesis: a combination of concurrent and exploratory sequential design of this thesis. Adapted from Creswell & Clark (2017)

This approach was suitable for this thesis as instead of the qualitative method being prioritised within the first phase (as typical exploratory sequential designs do), the qualitative (Study 1b) and quantitative data (Study 1a) were both deemed priorities (see Figure 3.2). Study 1 will follow a convergent mixed method plan, in which the qualitative and quantitative data will be collected simultaneously, the findings from each method are analysed and interpreted together (depicted in Figure 3.2). As Study 1 is the element of this thesis designed to provide an in-depth understanding of social groups and disordered eating recovery that will inform Study 2 design, it is deemed appropriate to utilise both the qualitative and quantitative components to provide a comprehensive understanding of the social groups held by people in disordered eating recovery. Through the implementation of this convergent design within Study 1, the researcher will develop a greater wealth of knowledge regarding social groups and social identity resources that are valued by those in disordered eating recovery and thus the researcher will be best informed to design Study 2.

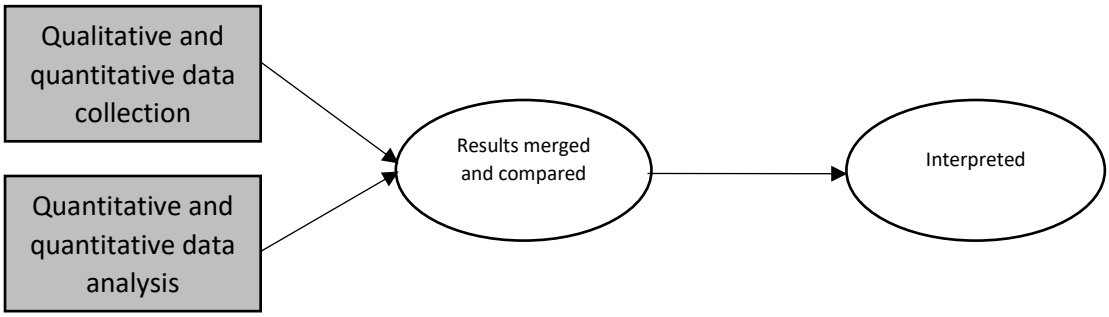

Figure 3. 2. The fully integrated convergent design of Study 1. Adapted from Creswell & Clark (2017)

This combination of Study 1a and Study 1b was necessary to provide a solid foundation for a larger quantitative study to be devised (Study 2). The premise of this body of work followed the core concepts of an exploratory sequential design, as the main quantitative element of this thesis (Study 2) would be guided by the findings from the qualitative conclusions, with the addition of quantitative data too (Study 1). Only once Study 1 data had been analysed could the quantitative portion of this thesis (Study 2) be effectively developed. The quantitative element of Study 1 is presented in Chapter 4 (Study 1a), while the qualitative element (Study 1b) and integration of Study

1a and Study 1b is presented in Chapter 5. The quantitative data that will be guided by the findings from Study 1 are presented in Chapters 6 and 7. Table 3.1 highlights the methods, the studies where they will be employed and the aims for each study. As the aim of the adapted exploratory sequential approach for this thesis is to utilise both qualitative and quantitative to explore the relationship between social groups and disordered eating recovery, an important step is to combine the separate findings to understand how this thesis has addressed the overall thesis questions and objectives. The integration of qualitative and quantitative analyses occurred after these individual analyses had been completed to effectively understand how the qualitative findings impacted the quantitative findings, but also how the quantitative findings in turn related back to the qualitative conclusions, as presented in Chapter 8.

Ultimately, the adapted exploratory sequential design utilised for this research is important as it will enable the researcher to effectively address the thesis objectives: Study 1 addresses multiple thesis objectives, see Table 3.1. It is crucial that the chosen methods are appropriate to address the thesis objectives (Creswell & Clarke, 2017). The next sections will identify the methods within the mixed method approach that will be undertaken in this thesis focusing on the appropriateness of the methods in addressing the thesis objectives (presented in Section 3.2).

Table 3. 1. Breakdown of The Studies, Methods, and Aims Within This Thesis

Study and Chapter	Method	Aim	Target thesis objective
Study 1a: Chapter 4	Quantitative and Qualitative[1]	Exploration of the composition of social groups held by those in disordered eating recovery	Objective 2
Study 1b: Chapter 5	Qualitative	Provide an in-depth understanding of what disordered eating recovery means, and the role of social groups within disordered eating recovery	Objectives 1 and 2
Study 2a: Chapter 6	Quantitative	To investigate the relationship between social groups, social group attributes from Study 1, and health/ well-being for people seeking disordered eating recovery	Objective 3
Study 2b: Chapter 7	Quantitative	To explore the relationship over time between social groups, their group attributes as in Study 2a and health/ well-being for people seeking disordered eating recovery	Objective 3

Note: [1]The primary interest of Study 1a was quantitative, but the qualitative component was established as an important element after the finalisation of the mixed method approach

3.4.1. Methods addressing thesis objective 1

As discussed in Section 3.2.1, the first objective for this thesis is to investigate what disordered eating recovery means for those going through the recovery process. The qualitative component of Study 1 will address this thesis objective, as qualitative investigations allow researchers to explore life events and interactions to understand personal experience and access depth and detail of social worlds (Mason, 2006), rather than a focus on numerical data as with quantitative research. As the present research is interested in the meaning of disordered eating to those going through recovery, utilising their rich lived experience will provide the necessary context behind what disordered eating recovery means to them (Patching & Lawler, 2009). Despite there being no firm definition on what disordered eating recovery is (Wade & Lock, 2019), a breadth of research has explored disordered eating recovery (Bardone-Cone et al., 2018; Bowlby et al. ,2015; Brittany et al., 2019; Dawson et al., 2014; Federici & Kaplan, 2008; Keski-Rahkonen, 2014; Noordenbos, 2011; Noordenbos & Seubring, 2006; Patching & Lawler, 2009; Pettersen et al., 2016; Stockford et al., 2019; Wade & Lock, 2019). Disordered eating research commonly uses qualitative methods e.g., when investigating both what disordered eating recovery is (Noordenbos, 2011; Pettersen et al., 2016) and what this recovery means (Bowlby et al., 2015; Patching & Lawler, 2009). Suggesting a qualitative approach as planned in Study 1 to explore objective 1 is appropriate.

Study 1 will utilise semi-structured interviews to address what disordered eating recovery means to participants, and follow Constructivist Grounded Theory (CGT: Charmaz, 2006; 2014) for both data collection and analysis. CGT is deemed appropriate to investigate thesis objective 1, as constructivism addresses how realities are made, and assumes that the inquiry begins with experience and construction of meaning (Charmaz, 2006), which is the core focus of objective 1. The priority of CGT is the phenomena of the study, in which the data and analysis combine to construct how and why participants provide meaning to specific situations (Charmaz, 2014). The use of semi-structured interviews was suitable for this analysis as the content and direction of the interview is heavily participant led (Howitt & Crammer, 2016), thereby providing researchers the opportunity to delve deeper into the phenomena of the study (Charmaz, 2006). Allowing

participants to influence the direction of interviews suits the exploratory nature of the current investigation, as the schedule for each interview was open-ended and, whilst still being broadly directed to the main phenomena of interest (Charmaz, 2006). Further support for the applicability of CGT to explore objective 1 is that previous disordered eating researchers have utilised CGT to explore various phenomena within disordered eating (e.g., experience of drop-out from treatment: Eivors, Button, Warner, & Turner, 2003, the role of pride: Faija, Tierney, Gooding, Peters, & Fox, 2017, sense of self: Williams, King, & Fox, 2016). These previous CGT investigations were focused on the experiences of those with AN, therefore, as the experience of disordered eating recovery is central to addressing the current thesis objective, it can be argued that CGT is appropriate within this investigation.

The aim of grounded theory (GT) is to explain a process where there have been no theories created or none exist that align with the current work (Creswell, 2008). Researchers have employed GT methods to explore social identities in areas that have yet to be explored from a SIAH perspective (Hajek, 2014). Thus, GT has been utilised to explore social identities independently of SIA (Hendry, Mayer & Kloep, 2007; Parker, 2014; Parker, 2018; Vincens, Stafström, Ferreira, & Emmelin, 2020). As there has been no extensive exploration into the relationship between social identities and disordered eating recovery, the researcher wanted to take a broad look at the role played by social identities in disordered eating recovery without being guided by the SIA. As such, they considered GT as an appropriate way to develop a theoretical model relating to social identities and disordered eating recovery.

3.4.2. Methods addressing thesis objective 2

The second thesis objective is to explore the role of social identities throughout disordered eating recovery. Unlike thesis objective 1, this current objective can be addressed both qualitatively and quantitatively. A substantial amount of research within the Social Cure is quantitative (Cruwys et al., 2016; Haslam et al., 2005; Miller et al., 2017; Sani et al., 2012; Sani et al., 2015a; 2015b;

Stevenson, Costa, Easterbrook, McNamara, & Kellezi, 2020; Wakefield et al., 2017; Wakefield et al., 2020). Within this wealth of literature, there have been substantial developments in scales attempting to capture the social world (collated within Haslam et al., 2018). An area of interest in Social Cure research is the strength of group identification, which has led to the generation of both multi-dimensional and unidimensional scales (Doosje, Ellemers, & Spears, 1995; Postmes, Haslam, & Jans, 2013). Social Cure is centred around more than just the strength of group identification, but also the composition of social groups/social processes (e.g., compatibility; Iyer et al., 2009, disclosure; Molero et al., 2011, social support; Haslam et al., 2012), as discussed in greater detail in Section 2.3. To comprehensively explore social identities, researchers often utilise multiple social identity focused scales (Iyer et al., 2009; Haslam et al., 2005, 2008; Steffens, Jetten et al., 2016; Wakefield et al., 2020). As such, it could be argued that to comprehensively assess social identity through quantitative means, the researcher will need to employ a variety of scales.

Across the vast SIAH literature there is a reliance on correlational data, specifically through the utilisation of surveys. Surveys are an effective and simple way to collect data from a large sample across multiple time points (Lynn, 2009). However, surveys cannot account for the meaning behind participants' answers, which is a major strength of qualitative research (Creswell & Clark, 2017). This inability to account for meaning in survey research could be seen as problematic for SIAH researchers, as social context is an integral component of social identification and is central to the role played by social identities in determining mental health/well-being (Cruwys et al., 2016). Despite some SIAH survey research employing longitudinal designs, this research is still correlational (e.g., Bobowik, Martonovic, Basabe, Barsties, & Wachter, 2017; Cooper, Smith & Russell, 2017; Cruwys, South, Greenaway & Haslam, 2015; Greenaway et al., 2015; Heath, Rabinovich & Barreto, 2017; Muldoon et al., 2017). Therefore, although the temporal ordering of relationships can be discovered, no causal conclusions can be made, and there is the potential for unaccounted external factors to be affecting these relationships. Ultimately, while no method is perfect, the utilisation of various methods throughout this thesis (i.e., qualitative interviews, oSIM,

longitudinal survey) will help to address some of these methodological limitations by ensuring that the weaknesses of one method are balanced by the strengths of the other.

This vast research using psychometric scales to measure different social identity elements has culminated in the creation of Social Identity Mapping (SIM; Bentley et al., 2019; Cruwys, Steffens, Haslam, Haslam, & Dingle, 2016). This tool is either completed by participants on paper (pSIM: Cruwys et al., 2016) or online (oSIM: Bentley et al., 2019). Through this oSIM tool, quantitative data regarding participants' social identity networks are gathered (Cruwys et al., 2016). Through participants rating their identification with their social groups (e.g., how representative they perceive themselves to be of each of their groups), and more general social identity network questions (e.g., how compatible they perceive their social group to be), a plethora of information regarding social identities can be established. Due to the detailed information that oSIM can provide regarding the composition of social groups alongside identifying the social groups that people in disordered eating recovery belong to, oSIM was utilised within Study 1a. More information on the specifics on the oSIM tool utilised, and the full procedure can be found in Section 4.4.1. Arguably, to fully address thesis objective 2, the researcher will need to identify not only the groups people in disordered eating recovery belong but the composition of these groups, as well as the psychological resources provided by these social groups. Therefore, it would be expected that as oSIM concurrently captures several key social group processes (Bentley et al., 2019), utilising of oSIM within Study 1a will effectively address thesis objective 2. Arguably, the oSIM could effectively address some of the concerns with cross-sectional research (as discussed above).

In addition to utilising oSIM quantitatively, to objectively explore the social groups of people in disordered eating recovery, the researcher plans to use oSIM qualitatively to gather the subjective perspectives of people in disordered eating recovery about their social identities. Previous researchers utilising pSIM/oSIM (Bentley et al., 2019; Cruwys et al., 2016) has only focused on the wealth of statistical information that this tool can provide on the composition of social groups. However, this thesis will also utilise the qualitative elements that oSIM can provide. To the best of

the researcher's knowledge neither oSIM or pSIM had been explicitly used as an interview aid, and by employing oSIM as both a quantitative and qualitative tool the researcher is aiming to further the utility of oSIM. Therefore, the qualitative exploration of oSIM will be one of the unique contributions from this current work. It is predicted that using oSIM as an interview aid will provide contextual information regarding the social groups' participants include in their oSIMs. As highlighted within Chapter 2, context is an important consideration when exploring social identities as it can contribute to the role a social group has to a person (Cruwys, Platow et al., 2016). Arguably, as the situational context can influence the salience of a social group (Oakes, 1987), it is important to qualitatively explore the social groups people in disordered eating recovery belong, to provide the necessary background information to the statistical oSIM information. Therefore, the mixed method approach to oSIM will employ both the strengths of qualitative and quantitative methods to strengthen each other and ultimately address thesis objective 2.

oSIM provides valuable qualitative and quantitative exploration of current social groups held by those in disordered eating recovery, but without the contextual information about how these groups factor throughout the disordered eating recovery process, gathered in Study 1b, the understanding of social identity networks is one-dimensional, and could be missing crucial contextual components of social identity networks. For example, the participant's oSIM may indicate that they do not perceive a specific group as being important to their life, but without the qualitative background information gathered in Study 1b, we do not know how they became important. Therefore, it is expected that Study 1b will also address thesis objective 2. The CGT exploration of the relationship between social groups and disordered eating recovery, while focused on the recovery stage of disordered eating, will also explore social groups throughout participants life with disordered eating. Through this approach an initial understanding of composition of social groups people in disordered eating recovery belong will be developed whilst also appreciating the context and meaning participants assign to their social groups encompassed within oSIMs by establishing their role in different phases of participants lives. Thus, Study 1 will be

providing an in-depth awareness of the relevance of the Social Cure (Haslam et al., 2018) to disordered eating recovery.

One of the main attributes of GT is that minimal (if any) awareness of previous literature should be held before beginning theory development (Charmaz, 2006). However, CGT differs as it acknowledges that the theory which develops from the analysis is influenced by the researcher. This means this research intimately connected to the researcher and their experience with participants and external data sources (Charmaz, 2014). The Social Cure has been applied to a variety of domains (as highlighted in Chapter 2), but there is a lack of research into social identities and disordered eating recovery. The few empirical studies exploring social identities within disordered eating and disordered eating recovery are often qualitative in nature and include utilising transcripts from online pro-ED or ED recovery groups (Giles, 2006; McNamara & Parsons, 2016) and interviews (Bouguettaya, Klas, Moulding, King, & Knight, 2018; Ison & Kent, 2010). It can be suggested that utilising a qualitative approach, specifically CGT, is suitable to further our knowledge of social identities and disordered eating recovery. To comprehensively understand the role of social groups throughout disordered eating recovery, quantifiable and comparable information on social groups alongside the context of these groups is needed (provided through qualitative methods). As such, it is appropriate to utilise mixed methods to address this thesis objective.

3.4.3. Methods addressing thesis objective 3

The final thesis objective for this thesis is to explore the relationship between social identity changes, disordered eating symptomology, and health/well-being over time. While the relationship between social identities and health/well-being has yet to be explored for people seeking disordered eating recovery, it has been extensively researched in other areas (addiction; Buckingham & Best, 2016; depression; Cruwys, Haslam et al., 2014a, schooling; Iyer et al., 2009; recovery; Haslam et al., 2008). Social Cure research shows that social identities can have positive

and negative implications for health and well-being (Jetten et al., 2014; Kellezi et al., 2019), as discussed in greater detail in Chapter 2. When exploring the relationship between social identities/social groups and health/well-being Social Cure researchers also employ additional measures to test the role of processes which are thought to mediate the relationship between social identities and health/well-being over time (e.g., loneliness; Kellezi et al., 2019; Wakefield et al., 2020, social support; Haslam et al., 2005; Steffens, Jetten et al., 2016). Common measures utilised to investigate each construct within this relationship are collated by Haslam and colleagues (2018). Therefore, as previous Social Cure research often utilises a variety of measures to fully capture the relationship between social identities/groups, mediating factors and health/well-being over time, Study 2 will also utilise this quantitative approach to address thesis objective 3.

As no research has yet established social identity changes throughout disordered eating recovery, this thesis aims to address this. As such, Study 2 will be a six-month longitudinal survey study with two time points (with the data being analysed both cross-sectionally; Chapter 6 and longitudinally; Chapter 7).

SIAH researchers commonly utilise quantitative surveys to explore social identity processes. The majority of this work is conducted cross-sectionally (Chang, Jetten, Cruwys & Haslam, 2016; Haslam et al., 2018; Howitt & Cramer, 2020; van Veelen, Hansen & Otten, 2012). Although, cross-sectional work is an important step in the exploration of different phenomena it cannot speak to temporal ordering of variables (Howitt & Cramer, 2017). Longitudinal studies involve the collection of data from participants on several variables over time to explore if there have been any changes in the phenomenon of interest during this time period (Balnaves & Caputi, 2001). As such, longitudinal research can explore any associations found cross-sectionally, and temporal relationships can be established (Howitt & Cramer, 2017). Several studies have adopted longitudinal methods to explore the Social Cure (Cruwys et al., 2014; Iyer et al., 2009; Miller et al., 2017; Praharso et al., 2017; Steffens et al., 2016; Wakefield et al., 2016; Wakefield et al., 2018; Wakefield et al., 2020). Exploring the mediating and moderating of important psychological resources and/or identity processes (e.g., social support: Haslam et al., 2005) was of interest within

Study 2. Therefore, to best understand social identity changes over time experienced by people seeking disordered eating recovery, a longitudinal design was appropriate (Ruspini, 2003).

Study 2 will employ a panel study, as the same sample will be surveyed at both time points to explore any changes on the survey measures for the same participants across these time points (Nardi, 2018). At both time points of the longitudinal research participants will be given the same quantitative survey. A quantitative survey was most appropriate as it allows for the exploration many variables at once (Lynn, 2009). Longitudinal survey data aids in the ability to investigate temporal sequencing between the phenomena of interest within Study 2. However, one of the disadvantages it has over cross-sectional research is the risk of sample attrition (Lynn, 2009). Sample attrition is common throughout longitudinal research, where respondents become non-respondents throughout the course of the study therefore reducing the sample size (Howitt & Crammer, 2016). This is a known concern but attempts to minimise sample attrition have been considered and are discussed in Chapter 7. The longitudinal quantitative study will provide an objective understanding of social identities in disordered eating recovery, which can build on the qualitative findings from Study 1. Thus, not only addressing thesis objective 3, but also aligning with the final part of the exploratory sequential design of this thesis.

3.5. Conclusion

Throughout this chapter the researcher has outlined the exploratory sequential approach that will be undertaken to comprehensively address the thesis objectives of the thesis. Despite the breadth of research attempting to define and understand disordered eating recovery (Bowlby et al. ,2015; Brittany et al., 2019; Dawson et al., 2014; Federici & Kaplan, 2008; Keski-Rahkonen, 2014; Noordenbos, 2011; Noordenbos & Seubring, 2006; Patching & Lawler, 2009; Pettersen et al., 2016; Stockford et al., 2019), there is no comprehensive and agreed upon definition (Bardone-Cone et al., 2018; Wade & Lock, 2019). This thesis aims to provide further understanding of what disordered eating recovery means to people who are currently going through the recovery process. The

meaning and context behind disordered eating can only be ascertained through qualitative methods, as these utilise the rich lived experience of participants (Edmonds & Kennedy, 2016). Utilising both the qualitative and quantitative components of Study 1, the researcher aims to address what the role of social identities are throughout disordered eating recovery. As little is known about social identities in disordered eating recovery, the qualitative elements of Study 1 are essential to not only establish what the roles are of social identities, but to gain an understanding of the context and meaning behind both the social identities and the roles they have for the person in disordered eating recovery. The addition of the quantitative component of Study 1 will provide the researcher with objective and comparable information on the social groups that people in disordered eating recovery currently belong to. Therefore, the combination of qualitative and quantitative methods throughout Study 1 will provide a comprehensive understanding of both the social groups which are involved within the disordered eating recovery, and the composition of these groups. Finally, to effectively explore social identities and health/well-being over time the researcher will undertake a longitudinal survey study. This was chosen as the main quantitative element of the exploratory sequential design, as it is a simple way to gather extensive quantifiable information on all the constructs involved in this relationship which are easily comparable over the two time points. Therefore, it can be concluded that undertaking and employing an adapted exploratory sequential design for this thesis will appropriately address the thesis objectives and provide a comprehensive understanding of the relationship between social identities and disordered eating recovery.

4. Study 1a: Using Online Social Identity Mapping to explore the social groups people in disordered eating recovery belong to

4.1. Chapter overview

As highlighted in the previous chapter, Study 1a aims to explore the composition of social groups people in disordered eating recovery belong to, with the aim of addressing thesis objective 2. There is a lack of knowledge regarding the nuances of the social groups that are important and/or involved in the process of recovering from disordered eating. As such, this chapter will present research aims and objectives specifically for Study 1a with the intention of aiding the researcher's ability to answer the larger thesis objectives. Study 1a will be an investigation into not only the groups which those in disordered eating recovery currently belong to, but also the composition of those groups. To achieve this, Study 1a employed oSIM (Bentley et al., 2019; Cruwys et al., 2016) as this is a tool explicitly designed to provide information on both the social groups a person belongs to and the structure of these groups (Bentley et al., 2019). To explore the social networks of those in disordered eating recovery, both quantitative and qualitative methods will be employed with the aim of developing a comprehensive and in-depth understanding of the social groups that make up the social networks of people in disordered eating recovery. As Study 1a is the first study to utilise oSIM as a qualitative tool within this context, as well as a means of quantitative data collection, this chapter will cover an exploration into the appropriateness of oSIM as a tool for those in disordered eating recovery. As there are a variety of important focuses within Study 1a, this chapter will be split into the following sections: a quantitative analysis of social identity maps, a qualitative exploration of the social identity maps and the utility of the oSIM tool with this sample.

4.2. Study 1a rationale, aims and hypotheses

As discussed throughout the literature review, the role social identities play in recovery has predominantly been investigated in an addiction, rather than disordered eating (e.g., Best, Beckwith et al., 2016; Cruwys et al., 2016). Initial findings suggest that a shared recovery identity can be beneficial for people seeking recovery from an ED (Ison & Kent, 2010; McNamara & Parsons, 2016). Identification with a recovery identity is thought to improve interactions with other important groups (e.g., family and friends) suggesting that a network of group memberships is beneficial for recovery (Hastings et al., 2016). These initial findings align with the breadth of addiction research that highlighted the composition of social identity networks is an important factor in the recovery progress (Bathish et al., 2017; Best, Beckwith et al., 2016). Arguably, to effectively develop an understanding of social identities within disordered eating recovery, research needs to not only explore the social groups those recovering from disordered eating hold but also the composition of their social identity networks too (e.g. are the group supportive, are they important groups, and are the groups within the network compatible). Therefore, Study 1a aimed to develop knowledge regarding the social identity networks people in disordered eating recovery have, by exploring all current social groups people in disordered eating recovery belong to. More specifically, the aim was to develop an understanding of the types of groups people in disordered eating recovery belong to, the composition of these groups (e.g., the positivity of belonging to a group, the support they provide, their importance to the person recovering, and the compatibility of groups within the network), alongside perceptions of these groups (e.g., why one group may important, and another may not).

oSIM was utilised to explore these aims and help establish additional information regarding the appropriateness of this tool within disordered eating recovery. oSIM was employed to address research questions devised to target different facets of the main thesis objectives. More specifically, to fully understand the role of social groups (thesis objective 2), oSIM will address the following research questions:

4.1. What social identity networks do people in disordered eating recovery hold?

4.2. What social groups do people in disordered eating recovery identify with and what is the composition of these groups?

An additional area of interest within Study 1a was whether current social identity networks captured by oSIM would have changed throughout life with disordered eating, and participants' beliefs about their social identity networks in the future. As exploration of social identities over the course of disordered eating recovery is central to this thesis (thesis objective 3), Study 1a could provide initial findings regarding social identity changes that occur throughout disordered eating recovery. This initial understanding provided by people's perceptions of how their social identity networks have changed and will continue to change could provide greater foundations for Study 2 and thus effectively address thesis objective 3. pSIM and oSIM have been utilised in a variety of studies (Bentley et al., 2019; Cruwys et al., 2016; Haslam, Cruwys, Haslam, Dingle, & Chang, 2016; Haslam, Dingle, Best, Mackenzie, & Beckwith, 2016), and in each study the resultant data have been analysed quantitatively, however, no studies have utilised oSIM qualitatively. Exploring oSIMs qualitatively by the researcher asking questions about the different features of oSIM (e.g. why participants believe a group to be supportive; important; or incompatible with other groups) could provide necessary contextual information behind social groups. Thus, developing our understanding of social identities by developing the meaning behind oSIMs. oSIM provides a breadth of quantitative knowledge regarding the composition of social identity networks, however, through this data there is no way to explore the context behind the social identity network that is established. Thus, to effectively develop a comprehensive understanding of social identities within disordered eating recovery it is essential to gather the contextual information in addition to the statistical knowledge. To begin to explore the social identity changes throughout disordered eating recovery (thesis objective 3) oSIM will address the following research question:

4.3. Do people recovering from disordered eating perceive their social identity networks to have changed over time, and do they believe these social identity networks will continue to change over the course of their life?

Finally, the usefulness of oSIM has recently been explored through quantitative ratings from participants, finding a positive user experience with no difficulties reported by participants in the functionality of oSIM (Bentley et al., 2019). As Study 1a is the first to utilise oSIM as an interview aid and with people in disordered eating recovery, understanding the appropriateness of oSIM as a tool in both these contexts is an additional interest of the researcher. Therefore, it was deemed important to investigate the experience of using oSIM to explore social worlds to understand the user experience as this tool has not been utilised within this population. As such, Study 1a aims to answer the following question:

4.4. What are the thoughts of people in disordered eating recovery on the utility of using Online Social Identity Mapping to explore their social worlds?

4.3. Study 1a methods

Participants

Fifteen participants (14 females, M_{age}= 27.4 years, *SD* = 11.92, *age range* = 18-62) were recruited through advertisements (Appendix 1) distributed by eating disorder charities across the UK (e.g., Derbyshire, Buckinghamshire, and Northern Ireland). Fourteen participants had received an ED diagnosis, while one had self-diagnosed their ED. As such, although all participants self-identified as being in recovery/recovered from an ED, due to not all having an ED diagnosis, Study 1a and Study 1b will utilise the disordered eating spectrum (as discussed in Chapter 1). Five participants considered themselves recovered, whereas ten saw themselves as recovering. Further participant information can be found in Table 4.1

*Table 4. 1. Pa*rticipant Demographic Information for Online Social Identity Mapping (oSIM) exploration

Name*	Age	ED diagnosis	Recovery Status	Place of residence
Montana	18	Anorexia Nervosa	Recovering	North West
Imogen	62	Bulimia Nervosa	Recovering	North West
Lisa	26	Bulimia Nervosa	Recovering	South West
Lily	26	Anorexia Nervosa	Recovered	South East
Emma	22	Anorexia Binge/Purge Type	Recovering	Not Reported
Sarah	29	Anorexia Nervosa & Bulimia Nervosa	Recovering	Northern Ireland
Alice	21	Anorexia Nervosa	Recovering	South East
Anastacia	26	No ED Diagnosis	Recovered	West Midlands
Madeleine	48	Bulimia Nervosa	Recovering	East Midlands
Jimmy	22	Anorexia Nervosa	Recovering	South East
Sally	23	Anorexia Nervosa	Recovering	East Midlands
Milly	19	Anorexia Nervosa	Recovering	East Midlands
Lucy	27	Atypical Anorexia Nervosa	Recovering	South East
Erica	21	Anorexia Nervosa	Recovered	East Midlands
Laura	21	Anorexia Nervosa	Recovered	East Midlands

* All names provided are pseudonyms

Design and Materials

Study 1a employed oSIM once participants had completed an interview about their life with disordered eating. The interview portion of this study (Study 1b) will be discussed in more detail in the following chapter, however, the interview focused on participants' lives before their

disordered eating developed, living with disordered eating and their recovery efforts. The involvement of participants' social groups throughout this process was a key interest in the interviews, as participants discussed the relevant social groups throughout their battle with disordered eating, rather than just focussing on their current social groups.

oSIM was chosen to explicitly explore the social identity networks of people in disordered eating recovery. oSIM is a participant led-tool that involves the visualisation of a person's social identity network – social groups and group connections are quantified (Bentley et al., 2019). oSIM is an online version of the original paper version (pSIM; Cruwys et al., 2016). Each participant in this study created an oSIM through rating their current social groups on several social identity relevant indices, all of which can be found in Table 4.2. More specifically, the researcher obtained statistical information about participants' social identity networks, including the strength of identification and quality of identification with social groups (e.g., how important participants perceive each group to be to their lives, and how positive they feel about their membership of each group) alongside social identity network specific information (e.g., perceived compatibility and similarity of the groups to which they belong).

oSIM is a tool designed to be adaptable to suit the needs of researchers (Bentley et al., 2019). As such the researcher used this to create a study specific question measuring group support for ED recovery, the scale had groups that support the ED, thus considered detrimental to recovery at the low end of the scale, while groups that support ED recovery at the high end. The mid-point of this group quality component was utilised to represent groups that are unaware/not involved with their recovery. Groups fitting this mid-point for support are referred to as 'uninvolved' groups, encompassing groups that were not aware of participants' ED and/or not involved with the ED recovery. This uninvolved score is not an official oSIM rating, it was devised from participants explanations in the interview while completing the oSIM of why groups were neither supportive nor unsupportive of their ED recovery. By developing an understanding of the context behind groups perceived as the mid-point in terms of their support for recovery, the term uninvolved was utilised to effectively encompass all groups that scored the mid-point. This was

considered an appropriate label, as participants regarded both types of uninvolved groups (i.e., unaware, and uninvolved) as being neither good nor bad for their recovery, suggesting a suitable representation of the mid-point of this scale.

Table 4. 2. Online Social Identity Mapping Indices Explained

Construct	Scoring range	Meaning & Example
Group importance	High importance; Moderate importance; Low importance	The size of the group represents its importance (e.g., a large group would be a highly important group)
Group positivity	1-5	The positivity of their membership to their groups (e.g., 1 - not positive being a group member; 5 - highly positive to be a group member)
Representativeness of group	1-5	How representative/ typical they are of their groups (e.g., 1 – not being representative of a group; 5 – being highly representative of a group
Group activities	0-30	How often in a typical month they partake in group related activities, (e.g., 0 - no days a month are spent on group activities; 30 – engaging in group activities everyday)
Group support	1-5	Whether their groups support their ED or support their recovery (e.g., 1 - groups who support their ED/detrimental to recovery; 3 - groups which are unaware/uninvolved with their recovery; 5 – groups which fully support recovery)
Group similarity	Distance on page	Indicates how similar their groups are to one another, e.g., If there are three groups (family, friends, and work colleagues), family may be different to the other groups, while

		friends and work colleagues may have similar members, but the family group may not, so friends and work groups would be placed close together while family would be more removed.
Group Compatibility	'Very compatible'; 'compatible'; 'incompatible' & 'very incompatible'	The ease of maintaining their multiple group memberships, (e.g., Very compatible – it is easy to be part of their groups; Very incompatible – very difficult to be part of their groups)
Ideal	High importance, above the mid-point of positivity, representativeness, engagement in group activities, being supportive of ED recovery and the majority of links were compatible	A highly important group that the participant feels the group is positive, they are representative of the group, they regularly engage with group activities (within a month), the group is supportive of ED recovery and was mostly compatible with other groups within the oSIM.

Previous utilisations of oSIM/pSIM have used a 1-10 scale to score most components of social identity networks (Bentley et al., 2019; Cruwys et al., 2016). Categorising groups was different in both studies, the original validation paper stated cut-off values of ≥8 for positivity to be a positive group, whereas the oSIM validation paper (Bentley et al., 2019) use cut-offs above the midpoint (≥6) to define a positive group. However, this current study utilised a version that scored the same social group identification indices on a 1-5 scale and utilised cut-off values above the mid-point (i.e., ≥4 on positivity to be defined as a positive group). Within other quantitative tools within

social identity literature, scores above the mid-point on a scale (regardless of the length) are as chosen to represent the top scores (e.g., only scores of ≥5 on the 7-point Group Identification Scale indicate identification with a group: Sani, Madhok, Norbury, Dugard, & Wakefield, 2015a). Through the oSIM tool, an 'ideal' group is created: a highly important group that scores above the mid-point on all group attributes (i.e., positive, representativeness, engagement in group activities, supportive of recovery, and compatible with other groups within the oSIM). Recently, a new version of oSIM has been produced and redefined the 'ideal' group within this oSIM version to a 'supergroup' (Bentley et al., 2016). A 'supergroup' is defined as a group that scores above the mid-point (≥5) on positivity, representativeness, support, and the majority of links with other groups were compatible (compatible and highly compatible). Both an 'ideal' group and a 'supergroup' were developed to represent the most positive groups within a social identity network, however, as there are slight differences in their creation, Study 1a will utilise the 'ideal' group as this is what was provide by the oSIM the researcher employed.

oSIM is a visual representation of participants' social identity networks, as each rating is aligned with certain sizes, colours, and shapes to illustrate participants' perspective of their social identity networks. The importance of a group to participants was illustrated by the size of the box (e.g., a small box would be a lowly important group, while a large box would be a highly important group). When depicting the group specific constructs (e.g., how representative the participant is of each group), each number was given a colour. For example, if participants did not feel at all representative of a group that construct was red, while feeling slightly representative was orange, the next level of representativeness was light green, finally, feeling mostly or completely representative of a group was dark green. The next visual element of oSIMs was the perceived compatibility of participants' groups, illustrated by both a colour and a line style: participants connected 'very incompatible' groups with a red very thin dashed line; 'incompatible' groups with an orange medium-thick dashed line; 'compatible' groups with a light green thick dashed line, and 'very compatible' groups with a dark green solid line. The final aspect of the visual illustration of oSIMs was to highlight the similarity of the groups, all social groups perceived as similar within a

participant's social identity network were placed close together, whereas groups perceived to be different were placed further apart. Therefore, oSIMs containing the most positive social identity networks (e.g., highly supportive, and compatible) would be considerably green in colour, as green represents the positive options on all of the indices. However, oSIMs encompassing negative social groups would be red and/or orange in colour, as these colours represent the negative options on all the indices. For an example oSIM from one of the participants in Study 1 please refer to Figure 4.1, Jimmy's oSIM has been anonymised, so the titles of his groups match the group category but are not necessarily what Jimmy originally named them.

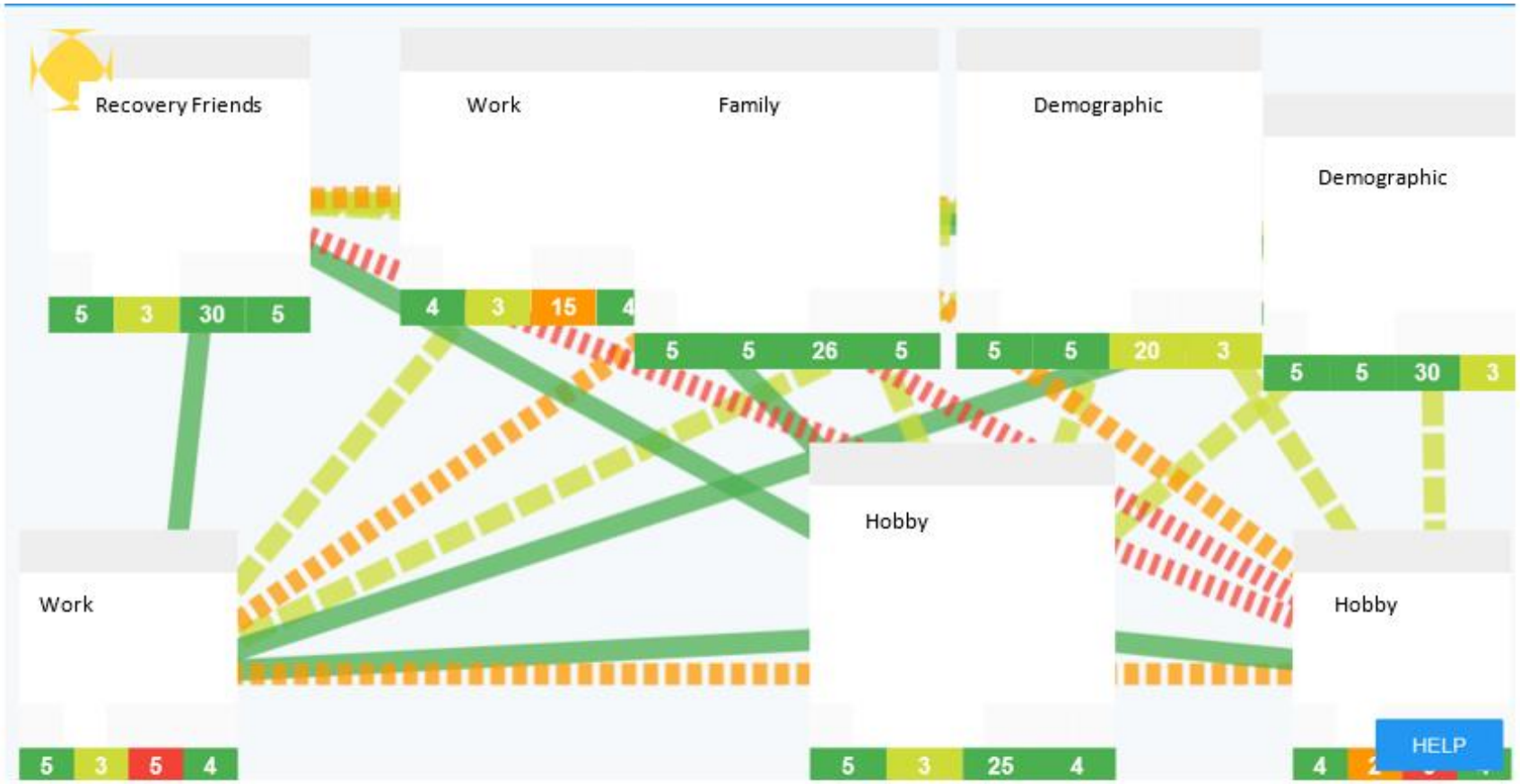

Figure 4. 1. Jimmy's oSIM he created as part of Study 1a. Positivity of group membership is the first number in the box; how representative Jimmy felt of his group is the second number; number of activities is the third box; and group support for recovery is the fourth number.

Jimmy showed that he belonged to one hobby group, one demographic group and family group that he considered highly important. As indicated by all of the light green and dark green colours on his map, he felt highly positive to be a member of all his groups, he felt highly representative of three groups (family and the two demographic groups), his engagement in activities with his groups varied per month, for example he engaged with his work friends roughly five times a month while he engaged with his recovery friends every day. Jimmy considered activities with his groups to be when he interacted with them about activities and group conversations about activities. Finally, he perceived all of his groups as either being 'supportive of recovery' or being 'uninvolved'. Overall, Jimmy perceived his oSIM positively and he was happy with his oSIM, despite any 'incompatible' or 'very incompatible' groups.

Data Collection

Ethical approval was granted by Nottingham Trent University's College of Business, Law and Social Sciences Research Ethics Committee (reference no. 2017/111). Participants were recruited via advertisements displayed on my behalf through a variety of charities (e.g., Beating Eating Disorders; Cared/FightED; Eating Disorders Association Northern Ireland; Frist Steps Derby; Journey Back To Life; SEED; The London Centre for Eating Disorders and Body Image), adverts were also distributed via social media, through the researcher's professional accounts. All participants consented to take part in an interview about their recovery experiences and were informed that the oSIM would be part of this interview. Participants were informed that they were not required to take part in the study, and that they had the right to withdraw at any point during and for one month following the completion of the study. It was made explicitly clear that participants were not required to answer questions that they did not want to (see Participant Information Sheet, Appendix 2). Participants provided written and verbal consent prior to study commencement (see consent form Appendix 3).

oSIM was completed at the end of each interview so that the researcher did not lead participants into focusing on their social groups throughout their recovery experience during the interview (Study 1b). Participants were made aware that their oSIM task would be audio recorded and should they have preferred not to be recorded this would have been facilitated. Four interviews with participants occurred face-to-face within a lab room at Nottingham Trent University, whereas the other 11 interviews were conducted over Skype. However, all 15 participants created their oSIM using an online tool (https://sign.azurewebsites.net/welcome/Jade_trial1) and were guided through this process by an online tutorial and the researcher. All participants were given the option to download a copy of their oSIM for their own records.

An oSIM procedure sheet was created for the researcher to support participants in the process of oSIM creation (e.g., *What I need you to do is move the slider underneath each of the*

four questions. As you move it you will see a number appear on the line, slide to the number that corresponds to your chosen answer. The numbers will then appear at the bottom of the group box.). The oSIM procedure sheet (Appendix 5) included additional questions to gain context behind participants groups (e.g., *So, have you put any in the largest size? If so, which ones and why are they the most important? Are there things that you do not like about your map? Is there anything that you would like to change if you could? Would you like some groups to be more/ less important to you?*). A debrief sheet (refer to Appendix 4) containing the contact details of the researcher and the director of studies were provided, alongside contact details for a variety of eating disorder charities from across the UK that participants could contact should they want to discuss any issues or concerns after taking part.

Quantitative Analytic Procedure

The oSIM data were analysed using SPSS (Version 25; IBM Corp., 2015). Descriptive statistics were produced regarding the number of important groups, positive groups, representative groups, high contact groups, supportive groups, and very compatible links between groups (definitions and statistics presented in Table 4.3, Section 4.3.2.1). Following this, the support for disordered eating recovery was focused on, to address this, the frequencies of each group and the support participants perceived the group to have for their disordered eating recovery (Table 4.4, Section 4.3.2.2). The ideal group was created based on the method described in Section 4.3.

Qualitative Analytical Procedure

Exploration of the oSIM qualitative data was conducted through a thematic analysis (Braun & Clarke, 2006). A thematic analysis was appropriate for this analysis as it is a flexible analytic method that can be utilised across a range of theoretical approaches (Braun & Clarke, 2012) which was important as no research has yet explored the qualitative components of oSIM. A mainly inductive approach was most appropriate for this analysis, due to the little prior knowledge of social identities within disordered eating recovery. As such, being led by the data allowed for the researcher to devise themes by the data, irrespective of the researcher's

theoretical stance (Braun & Clarke, 2006). The relevant research questions for this analysis were 4.3 (Do people recovering from disordered eating perceive their social identity networks to have changed over time, and do they believe these social identity networks will continue to change over the course of their life?) and 4.4 (What are the thoughts of people in disordered eating recovery on the utility of using Online Social Identity Mapping to explore their social world?) Therefore, the focus of this analysis was to be led by participants' perceptions of oSIM as an investigative tool, and any social identity changes experienced during participants' disordered eating recovery, rather than being led by the theoretical framework of Social Cure.

After the transcription of each interview was completed, they were transferred to NVivo qualitative data analysis software (Version 11; QSR International Pty Ltd., 2015), in which the qualitative analysis was conducted. The following phases were outlined by Braun and Clarke (2006). The first phase in thematic analysis was to read the transcripts repeatedly to ensure data familiarisation. Following this, was the second phase in which initial codes were generated across all the oSIM task related data, and once similar codes were identified they were collated into potential themes. Any codes not in keeping with the majority in a particular grouping were flagged to ensure any inconsistencies within the data set were acknowledged, as these are valid and important data to be considered. Phase three then involved identifying themes through exploration of the list of codes and collating codes and the appropriate data extracts to define the themes. Once the list of themes with the codes and data extracts were organised then these needed to be reviewed (phase four) ensuring no overlap between themes (i.e., the data within each theme is diverse from one another and each have enough data to support each theme). Finally, there was a process of defining and refining the theme names so that they captured the essence of the content of the theme (phase five). The themes presented within the following analysis were the most appropriate portrayal of the patterns found within the data.

4.3.1. Study 1a quantitative results

4.3.1.1. Study 1a descriptive statistics

The fifteen participants took between 19 and 46 minutes (*M*=32 minutes, *SD*= 8 minutes) to complete their oSIMs. A total of 110 groups were depicted within the 15 social identity networks and were subsequently separated into 10 group types: family, friends, recovery friends, work, hobbies, exercise hobbies, demographic, treatment teams, partner, and opinion-based groups. Once the oSIMs were created, the researcher underwent a process of collating the 110 groups and devising a series of group types that correctly represent the groups and how participants described the groups. Through the refinement of the group types, these 10 group categories were chosen as the most appropriate and representative titles for all participants' oSIMs, for example, participants made the distinction between having hobbies (e.g., music) and exercise hobbies (e.g., dancing), as such, it was appropriate to make this distinction when categorising groups. Similarly, participants also perceived clear differences between 'recovery' friends and other friends. Family encompassed all groups participants referred to as a branch of their family (e.g., extended family, partner's family, and immediate family). The demographic group type includes identities aligned with personal attributes (e.g., British); due to the similar context of these groups it was appropriate to collate these groups under the demographic group type. Opinion-based groups refer to groups which are psychologically meaningful and defined by their shared opinion (Bulic, McGarty, Reynolds, & Muntele, 2007), as such, religion and feminism are encompassed within this group type. Within Study 1 participants referred to their romantic partner as an important group, and considered this group as "us", mirroring their interpretation of their other groups (e.g., family and friends). Due to the social identity perspective that group membership is the differentiation between 'us' and 'them' (Brewer & Gardener, 1996), it was considered appropriate to continue using the partner group within this analysis to truly represent participants' social identity networks.

The most common group types were friends (30 groups classified as friends) and family (24 groups classified as family), with every participant including at least one family group in their

oSIM. On average, participants reported 7.3 (*SD*= 3.27) group memberships, of which 3.33 (*SD*= 2.02) were considered highly important, 3.2 (*SD*= 1.57) were perceived as representative, 6.07 (*SD*= 2.99) were reported to be positive (see Table 4.3). All participants perceived at least 1 group as supportive of their disordered eating recovery, with the number of supportive groups ranging from 1-10, with an average of 3.93 (*SD*= 2.63) supportive groups (see Table 4.3). There was an average of 1.23 (*SD*= 2.63) ideal group, this suggests that high quality groups were a feature of social identity networks within this study but were not overly frequent. All descriptive statistics for these main indices can be found in Table 4.3.

Table 4. 3. Descriptive statistics for the Online Social Identity Mapping Indices

	M	Median	*SD*	Range
Number of Groups	7.33	6	3.27	3-15
Number of Important Groups	3.33	3	2.02	1-8
Number of Ideal Groups	1.27	1	1.23	0-5
Number of Positive Groups	6.07	5	2.99	2-12
Number of Representative Groups	3.2	3	1.57	1-6
Number of Activities	3.2	3	1.82	0-7
Number of Supportive Groups	3.93	3	2.63	1-10
Proportion of Compatible Links[1]	0.73	0.76	0.23	0.27-1

Note: Groups were defined as positive, representative, supportive, or activity-oriented if they were scored higher than the mid-point on that scale.

[1] Positivity, representativeness, activities, and support are assessed as raw scores, compatibility is a proportional count calculated by oSIM software, like oSIM studies (Bentley et al., 2019; Cruwys et al, 2016). Ideal group was coded as described in Section 4.3.

4.3.1.2. Groups perceived as supportive of disordered eating recovery

Regarding this component of oSIM, 59 (53.64%) of the 110 social groups were reported as being supportive of participants' ED recovery, with most supportive group-types being treatment teams (100% of groups deemed to be supportive), partner (100% of groups deemed to be supportive) and family (62.5% of groups deemed to be supportive). Complete frequencies of group support can be found in Table 4.4. Across the participants, six specific groups were considered unsupportive of ED recovery, thus having a potentially negative impact on recovery. These were two family groups, one recovery friendship group, two work groups, and one hobby group. No friendship groups were reported to be unsupportive of ED recovery, suggesting that all friendship groups participants belonged to were either supportive or uninvolved. Overall, 45 groups were depicted as being uninvolved and/or unaware of participants' ED recovery; most commonly these were demographic (100%), opinion-based (100%) and hobby (57%) groups. Of the 30 friendship groups, 16 were considered uninvolved (53%), whilst slightly fewer were reported as being supportive of recovery (46.67%), suggesting that many participants did not involve all their friendship groups in their recovery, but those that were involved were perceived as supportive.

Table 4. 4. Frequency of Supportive, Uninvolved, and Unsupportive Social Groups in Online Social Identity Maps

	Total *N*	Supportive groups *N*(%)	Uninvolved groups *N*(%)	Unsupportive groups *N*(%)
Family	24	15 (62.5%)	7 (29.17%)	2 (8.33%)
General friends	30	14 (46.67%)	16 (53.33%)	0
Recovery Friends	5	4 (80%)	0	1 (20%)
Work	17	8 (47.06%)	7 (41.18%)	2 (11.76%)
Hobbies	14	5 (35.71)	8 (57.14%)	1 (7.14%)
Exercise hobbies	6	4 (66.67%)	2 (33.33%)	0
Opinion-based	4	0	4(100%)	0
Demographic	2	0	2 (100%)	0
Treatment teams	3	3 (100%)	0	0
Partner	5	5 (100%)	0	0
Total	110	59	45	6

4.3.2. Summary of Study 1a quantitative findings

This quantitative analysis explored the composition of participants' social identity networks, the types of groups in their networks, alongside their perceptions of their social group (e.g., how important a group is perceived to be, and whether that group was supportive of their ED recovery). Study 1a is the first study to establish an understanding of the social identity networks that people in disordered eating recovery belong to (research question 4.1). Previous research has highlighted that people living with disordered eating have social difficulties and experience poor social functioning (Cardi et al., 2018) and that this is still true for those in disordered eating recovery (Striegel-Moore et al., 2003). However, within Study 1a, participants' social identity networks ranged from 3-15, showing that, the current sample belonged to multiple groups. The original pSIM paper, which utilised a variety of samples (student, community, and clinical

samples) reported participants SIMs contained between 1-23 groups (Cruwys et al., 2016). The original oSIM paper reported that in a community sample the oSIMs contained between 2-11 groups (Bentley et al., 2019). The number of groups included within the oSIMs in Study 1a appear to be similar to the ranges found in other samples. Arguably, as the social identity networks of people in disordered eating recovery are similar to those without a history of disordered eating and therefore potentially not impaired as previous research has reported. The quantitative exploration of Study 1a also showed the types of groups encompassed within participants social identity networks, addressing research question 4.2 (what social groups do people in disordered eating recovery identify with and what is the composition of these identities?). The 10 social group types established within Study 1a showed a variety of groups people in disordered eating recovery belong to. Again, it could be argued that the variety and breadth of groups throughout Study 1a shows further evidence that social difficulties may not an issue for those in disordered eating recovery.

Additionally, this quantitative analysis highlighted a mix of supportive, uninvolved, and unsupportive groups suggesting that support is complex within the social identity networks of people in disordered eating recovery. Within SIMOR, researchers have suggested that while social networks of people seeking recovery can contain groups which are not supportive of the recovery, the aim should be to mainly belong to groups that are recovery orientated (Best, Beckwith et al., 2016). However, SIMOR makes no mention of the uninvolved or unaware groups, therefore it is important to further unpack the understanding of this group within the interview data (Study 1b). This element of Study 1a has addressed research question 4.1, as it has highlighted that the social identity networks held by those in disordered eating recovery are complex and contain a wide variety of types of groups. However, as stated at the beginning of this chapter, to gain a better understanding of these social identity networks, qualitative methods were employed to gather additional information to further explore participants' perceptions of their oSIMs. This will be the focus of the following section.

4.4. Part Two: Study 1a qualitative analysis

4.4.1. Study 1a qualitative findings

4.4.1.1. Overview

Two main themes were identified in the analysis; *oSIM emphasises the complexities of social identity networks*, and *oSIM reflects the stages of disordered eating recovery*. Extracts are provided to illustrate the two identified themes, only relevant information taken verbatim from the interviews throughout the oSIM task are presented. As such, information where participants are not referring to the topic of interest have been removed using three dots within square brackets ([…]). All names provided are pseudonyms.

4.4.1.2. Theme One: oSIM emphasises the complexities of social identity networks

Participants were not asked directly their opinions on using the oSIM, unlike in a quantitative exploration of user experience (Bentley et al., 2020), but through providing contextual information regarding their oSIMs they began referring to the benefits of the oSIM in their understanding of their social worlds. Often, this revolved around the colour coding system oSIM utilises that highlights the positive/good group components (i.e., being representative and highly compatible with other groups) or the negative/bad components (i.e., having no/ little engagement in group activities and being incompatible with other groups). Thus, discussions around participants' oSIMs suggested that visually depicting social groups allowed participants to better gauge changes to their social groups throughout their disordered eating recovery. Completing oSIM clearly showed the number of groups participants had, whilst illustrating group positivity and supportiveness or the incompatibility between groups. oSIM's visual attributes (e.g., showing positive features in green and negative features in orange and red) aided participants' reflections on their social worlds, allowing many participants to perceive their social worlds to be much richer than they originally thought:

INT: *do you think on there you could pick out things that are positive for you on your map? So, like things that you think are good?*

MADELEINE: *I think that they're all quite positive* [INT: *Yeah*] *More positive than I realised if I'm honest*

It was common for participants to evaluate their social worlds more favourably after the oSIM task than they had before completing it. The visual elements (e.g., the colours) highlighted to participants the true nature of their social identity networks and allowed them to clearly see the different social group compositions (e.g., positive groups and connections). As was the case for Jimmy, who remarked that it was "quite nice" to see the positive aspects of his social network, which seemed to lead him towards a more positive view of his social world:

INT: *Are there groups on there that are positive for you?*

JIMMY: *Yeah I think the amount of green things on there is always quite nice to see actually.* […] *because when you sort of picture your life like this and you see a lot of greens* [a highly positive map] *you realise that it's not as bad as it seems.* […] *Yeah, it's nice to see it like that*

Not all social identity networks were completely positive (as seen in Figure 4.2), but most participants were happy with their oSIMs and perceived their networks positively. Alice's comments below echo those of other participants; that whilst the groups themselves could be positive, the connections between groups were sometimes 'incompatible'. As highlighted below, not all groups necessarily shared the same views as other groups, and because of this Alice had to be careful "to merge" certain groups, which was why these groups were considered 'incompatible' or 'very incompatible'. As evidenced in Figure 4.2, the groups Alice discussed in the extract below, she considered it these groups to be positive (except from the recovery friends), she felt representative of them (except from the recovery friends), she regularly engaged in

activities with the groups (again except for the recovery friends), and considered all of them to be 'supportive' of her recovery (except for recovery friends), suggesting that despite the incompatibilities Alice could still consider these groups positive.

> INT: *Do you think that erm, there's anything on your map that you don't like? If you've got any red […]?*
>
> ALICE: *Er, yeah I've got a red line between erm, university peers and recovery friends, erm I find that those are difficult to merge and also between erm [*exercise group*] and* [a work group*] cus I feel that I have to tread very carefully how I frame my relationship with [*exercise group*] there. Then there's quite a few orange lines, erm because I think being a feminist and [*exercise group*] can sometimes come into conflict slightly and similarly my family have mixed views about erm me being in touch with recovery friends and things like that so there are a few orange lines.*

Figure 4. 2. Alice's oSIM (who discussed the reasons behind why she considered some of her groups 'incompatible' and 'very incompatible') created as part of Study 1a. This clearly shows that she had 2 very compatible groups (dark green lines); a number of compatible groups (light green lines),a number of incompatible groups (orange lines) and two very incompatible groups (red lines).

Sally also discussed the 'incompatible' and very 'incompatible' groups within her oSIM, again, although Sally perceived all the groups in her social identity network as being 'incompatible' or 'very incompatible', it did not mean she was not happy with her network. Sally indicated this in the following extract as she remarked that "it could be easier" when trying to involve both her family and community team, but despite this both groups were scored as being 'supportive' of her recovery. As she considered all her groups 'supportive' of her disordered eating recovery or 'uninvolved' with her recovery, it could be suggested that incompatibility of groups does not hinder the group's ability to support Sally in her recovery (Figure 4.3).

> INT: *Yeah, so you know you've got those orange and red lines, is that something that has like an impact on you?*
>
> SALLY: *Erm, not all of them, the family and community team one yeah,* [INT: *Yeah why's that?*] Erm it could just be easier […] *erm just cus I feel like I don't want to involve- it's hard to get the right amount of involvement between the two of them, I don't want family to know too much*

The interactive and visual nature of oSIM clearly showed to participants that their social identity networks were generally more positive than they realised. Through the process of connecting the social groups differences between their social groups and any difficulties they have in belonging to their different groups were revealed. Therefore, the process of depicting social groups through oSIM emphasises the complexities of social identity networks (Cruwys et al., 2016). The oSIM procedure and its visual portrayal of participants' groups provided an alternative perspective into participants' social worlds. It could be argued that without oSIM providing further clarity on social identities, participants' realisations that their social identity networks were overall more positive than they initially thought, and that membership of multiple groups can be difficult, may not have been as clear to them. This theme shows that despite having

‘incompatible’ and ‘very incompatible’ groups within their social identity networks, groups could still be considered positive and ‘supportive’ of disordered eating recovery. Therefore, although participants appear to engage in careful management of their social groups, they can be happy with their oSIMs.

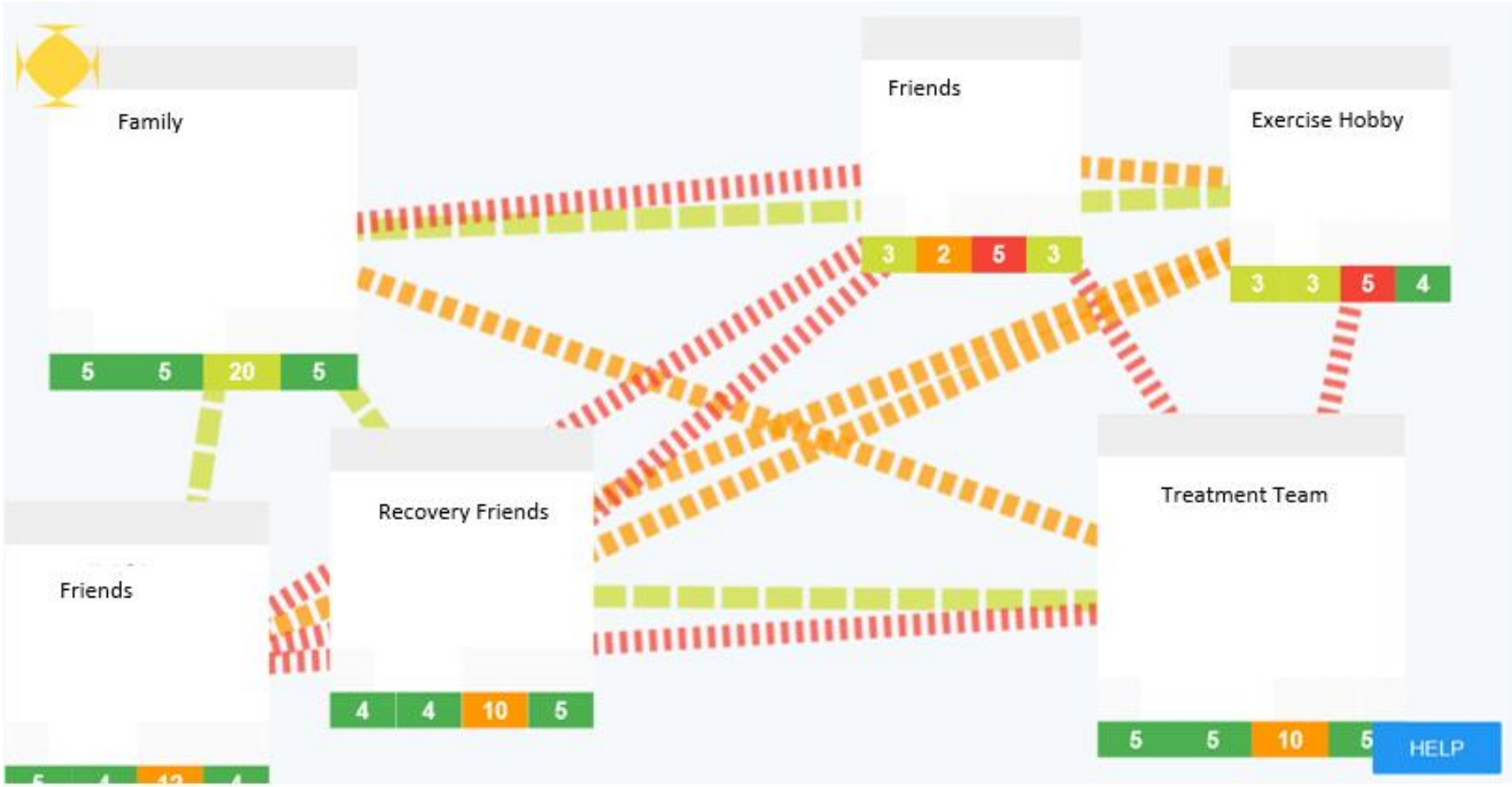

Figure 4. 3. Sally's oSIM (who again discussed the reasons behind why she considered some of her groups 'incompatible' and 'very incompatible') created as part of Study 1a. Sally clearly depicts 4 compatible groups (light green line); 4 incompatible groups (orange line) 6 very incompatible groups (red line)

4.4.1.3. Theme Two: oSIM reflects the stages of disordered eating recovery

One of the key parts of the discussions around the oSIMs was that participants perceived their social network to have changed over time and anticipated that these would continue to change in the future (from disordered eating development, through to their current disordered eating recovery stage, and into the future). Participants indicated their oSIMs would have been vastly different if they had been created during the acute phases of their disordered eating. When discussing how their groups would have been different when living with their disordered eating, participants reported not all of their current groups would have been on their maps, and the groups that would have been included would have been perceived differently (e.g., not feeling as representative of their groups), as highlighted by Emma below:

> INT: *Like do you think some things would be different* [if your oSIM had been made when you were living with your ED]*?*
>
> EMMA: *I would have been not representative of all of them [*groups*] because I just wasn't myself at all. Erm, so I think that would have been affected.* […] *And how positive I feel about being part of them would have got me down because I felt that I wasn't really part of anything cus like your life is taken away from you when you're under that spell so you can't really be part of anything else.*

Here, Emma discusses the oSIM indices, explaining how these would have differed if they had been measured when she was living with her disordered eating. She remarked that she "would have been not representative" of all her groups due to her focus on her disordered eating and her lack of focus on her group memberships (compared to now, when her attention to/with her groups is higher). Acknowledgments that participants' oSIMs have changed, generally becoming more positive since entering the recovery process, supports previous findings that identity changes occur over the recovery process (Ison & Kent, 2010). As such, when queried about the

likelihood of oSIMs changing in the future, answers again reflected the participant's disordered eating recovery stage:

> INT: *Is there anything on there you don't like about your map? Like anything you would want to change if you could?*
>
> MILLY: *Hmm, when I get better I want it to get easier you know with like friends and family and work friends and family. And like I've put* [treatment team] *and horse riding* [exercise hobby] *because they're like completely incompatible because they don't want me riding again. But when I get better and I can gradually start doing things again that relationship will get better because I'll be able to ride again and that will be great.*

Milly (at time of interview) was at the beginning of her recovery and wanted to expand her social identity network as she recovered. This suggests that recovery, and growing socially, are connected. In this extract she explains that her therapist does not want her to engage in her exercising hobby due to her not currently being stable enough in her recovery to return to exercise. Therefore, the treatment team and the exercise hobby group are two social identities that are incompatible, as they have contrasting norms in relation to Milly's recovery. This also shows Milly's intention to restore a previously valued social identity in recovery that was lost due to her disordered eating, something highlighted in addition recovery work (Cruwys, Dingle, & Frings, 2015). This contrasts with participants further along in their recovery, like Lily (see Lily's oSIM in Figure 4.4), who commented that in the future she would only want minor oSIM changes to occur, if any:

> INT: *Okay, so do you think maybe in the next like five years, your map will change again? Or is it how you pretty much think it will stay for years to come*?
>
> LILY: *I think that in an absolutely ideal world it would all be light green and green*. [INT: *Yeah.*] *But if it stays how it is now then that's okay too*.

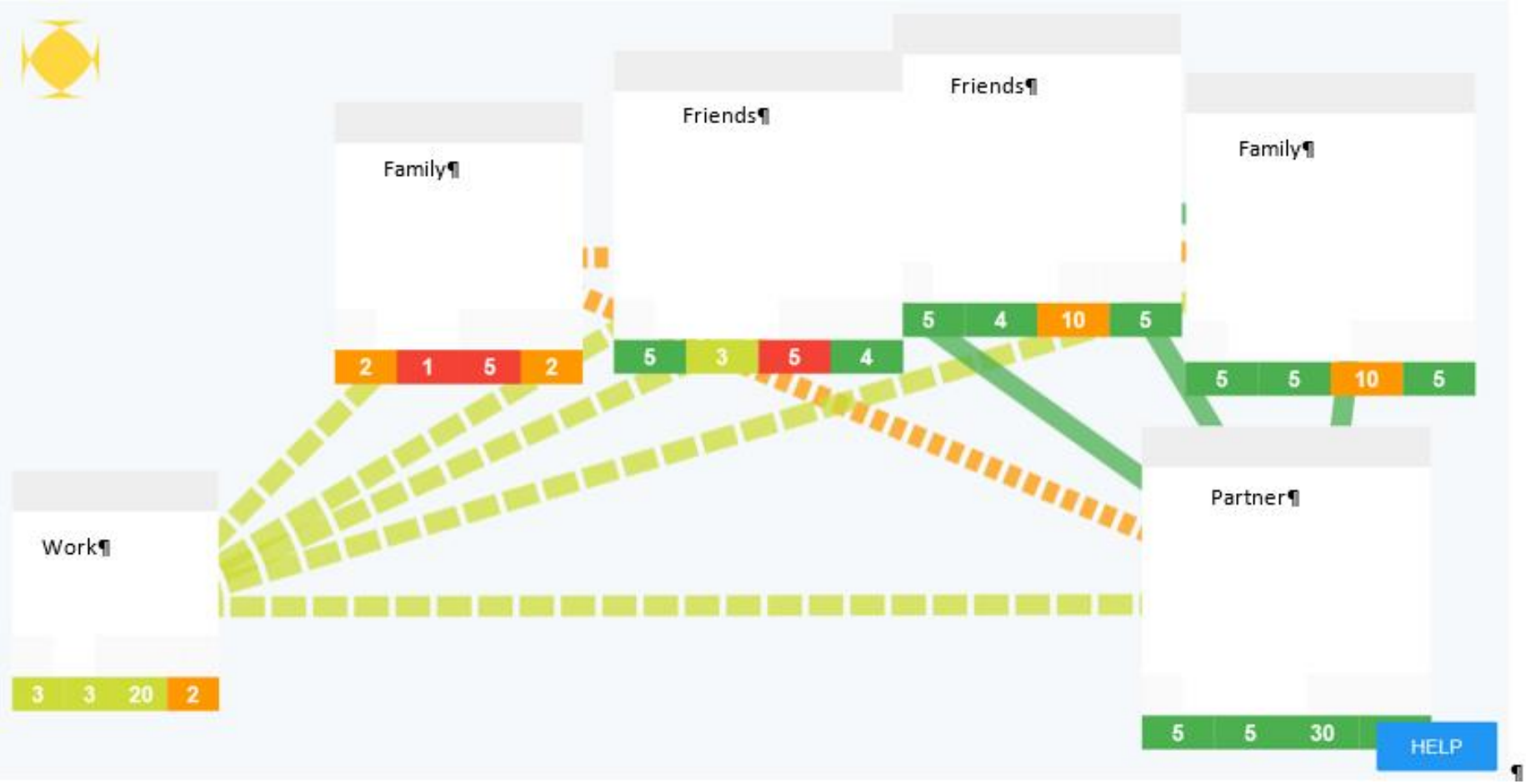

Figure 4. 4. Lily's oSIM. The oSIM clearly shows that there were a mix of positive elements and less positive elements within Lily's social identity network. Despite not feeling positive about being a part of 1 family group: (1st number); not feeling representative of that family group (2nd number); not engaging with that family group very much (3rd number); that family group not being supportive of her recovery (4th number) and family being incompatible with positive and important groups (e.g. partner and family), she still was happy with her social identity network.

Lily considered herself recovered; her oSIM contained both positive and negatives, with two out of six groups (immediate family and work) being negative (i.e., not supportive of recovery). She was aware that a completely positive map (e.g., highly compatible and supportive) would be the ideal representation of her social identity network. However, Lily was content enough with her current social group situation that if her groups remained the same in the future then this would be okay for her.

As illustrated above, oSIM highlighted that participants' social identity networks varied depending on the stage of their illness/recovery, showing that people recovering from disordered eating believe their social identity networks have changed and will continue to change over the course of their life (research question 4.3). Participants' stage of disordered eating recovery appeared to reflect their perceptions of the nature and size of their social identity networks. Participants believed when their disordered eating symptomology was more acute their social world would have been reduced in size in comparison to their current groups, and as they progressed through their recovery their social identity network expanded and became more positive. This sample self-identified as in recovery/recovered from their disordered eating, they were all at different stages of recovery (e.g., being in the early stages of recovery or being fully recovered), and some participants were more content with their oSIMs than others. Those further along in their recovery were often happier with their oSIMs, and, as such, it could be suggested that each participants' position in their recovery was reflected in how happy their felt about their map. It should be noted that as this study was conducted with the person when they were in disordered eating recovery, we have no evidence on whether these changes occurred before or after they identified as being in recovery.

4.4.2. Summary of Study 1a qualitative findings

This qualitative analysis aimed to provide contextual information to further understand the oSIMs initially discussed quantitatively, whilst exploring the utility of oSIM through participants'

experiences as a tool to investigate social identity networks in disordered eating recovery. Encouraging discussions throughout the oSIM process enabled participants to reflect on (and provide extra information regarding) their social identity networks (Steffens et al., 2016). oSIM provided participants with a clear visual method to explore their social identity networks which aided their ability to observe the positive and/or negative aspects of their networks (e.g., groups being highly supportive, or having incompatible groups). It appears that participants have complex social identity networks that can contain both 'supportive' and 'incompatible' social groups. Due to this, some participants engaged in careful management of their social groups, but despite any incompatibility participants can still be happy with their social identity networks. Thus, it can be suggested that oSIM is a potentially useful tool in facilitating discussions about social identity networks.

Reflections on oSIMs revealed social groups changed throughout the participants' life with disordered eating, and participants' oSIMs reflected their current disordered eating recovery stage. Participants remarked that they would not have been a representative member of their groups or have perceived their groups as positively when dealing with their disordered eating, due to how consumed they were by their disordered eating. Through these reflections it was evident that the social identity networks of participants had changed for the better as all participants were happy with their networks. Some participants discussed wanting changes for their networks (e.g., re-engaging with a former important group again) as they progressed throughout their recovery, others did not discuss any major changes to their networks in the future. As such, it can be suggested that oSIMs have a complex nature and go through periods of change that reflect the journey of disordered eating recovery.

4.5. Study 1a: Discussion

Study 1a provided initial evidence pertaining to the types of groups that are part of the social identity networks held by people in disordered eating recovery, addressing research question 4.2

(What social groups do people in disordered eating identify with?). Relevant social groups ranged from family groups to hobby groups, suggesting people in recovery/recovered from disordered eating belonged to multiple groups. Despite these findings, previous research suggests people with disordered eating struggle to develop social relationships (Leonidas & dos Santos, 2014). As highlighted in Section 4.3.2, the number of groups within the current samples' networks ranged from 3-15 and were similar to those reported in the original pSIM paper (networks ranged from 1-23 groups; Cruwys et al., 2016) and the original oSIM paper (networks ranged from 2-11 groups; Bentley et al., 2019). Therefore, this shows that people in disordered eating recovery belong to a similar number of groups as those without a history of disordered eating and contradicts previous conclusions.

Finding participants' social identity networks would have been reduced during acute stages of their disordered eating supports claims that social relationships are an issue during the development and maintenance phases of disordered eating (Hartmann, Zeeck, & Barrett, 2010). However, due to the changes to participants' social worlds during their current recovery stage, it could be suggested that increases in number of social groups mirror that found within addiction recovery (Bathish et al., 2017; Best, Beckwith et al., 2016; Mawson et al., 2015; Petterson et al., 2019). As established through Study 1a, the compositions of social identity networks are complex (e.g. a mix of important, positive, supportive, and compatible social groups). Study 1b can further unpack the complexities found in these oSIMs by exploring the context and meaning behind the groups within these social identity networks and how they became part of participants oSIMs.

Social identities (outside of the shared ED-recovery group) have not been explicitly explored in previous disordered eating recovery and social identity research. Finding throughout Study 1a that a variety of groups (e.g., work friends, hobby, and demographic groups) are not only a part of the lives of those in recovery but can also be beneficial for them (e.g., being important, positive, and supportive of recovery) is an important progression of this literature. Arguably, finding that participants belong to a variety of groups supports the claim that potentially those in disordered eating recovery are not as socially impaired as previous research has indicated. Therefore, Study

1a provides a platform for future work to explore these different groups and their relationship with disordered eating recovery to provide a comprehensive understanding of the different social groups that make up the networks of those in disordered eating recovery.

Family and friends were the most commonly reported groups within this study, as such it could be argued these are key social groups for people recovering from disordered eating. Researchers have suggested that hostile or judgemental family environments can be a potential risk factor for the development of disordered eating (Gillett, Harper, Larson, Berrett, & Hardman, 2009). Within Study 1a, family was one of the most commonly reported groups (*N*= 24), but not all family groups were supportive of recovery, as a small number were considered negative for recovery. As such, it can be suggested that while the family plays an important role in disordered eating recovery, it may not always be positive, thus supporting previous findings (Linville, Brown, Sturm, & McDougal, 2012). Not only can the family impact the disordered eating, but also the process of someone living with/recovering from disordered eating can have a major impact on the lives of other family members (Tuval-Mashiach, Hasson-Ohayon, & Ilan, 2014), suggesting a dynamic relationship between family and disordered eating. It can also be suggested that family dynamics change throughout life with disordered eating, either becoming united as a group, or fracturing (Hillege, Beale, & McMaster, 2006), although this cannot be confirmed through the present analysis. As such, the next chapter will qualitatively explore participants' journey to their current disordered eating recovery stage and how their social groups changed and were involved throughout this journey, with the aim to further investigate Study 1a findings.

This current study showed that friendship groups were the most reported social group (*N* = 30), suggesting that as with family, it is an important group in disordered eating recovery. As 14 of the 30 friendship groups were perceived as supportive of recovery, these findings not only support previous conclusions that outside of the family, friends were one of the most commonly relied on group for support (Marcos & Cantero, 2009), but also provides insight into the composition of the friendship groups that aids our understanding as to why these groups are relied upon. Sixteen of the friendship groups participants belonged to were not aware of their

disordered eating recovery, suggesting participants often chose not to disclose or involve their friends in the recovery efforts. Despite these friendship groups not being involved/aware of the disordered eating recovery, these groups could still be perceived as important and positive groups. Therefore, these findings begin to provide the support for initial claims that groups outside of the family group can have an important role for people with disordered eating and these should be incorporated within treatment interventions (Leonidas & Dos Santos, 2014; Leonidas & Dos Santos, 2017). Reportedly, friends are considered one of the key influences behind the recovery (Keski-Rahkonen & Tozzi, 2005). Nonetheless, these current findings do provide further support for friendship groups being an important identity for people in disordered eating recovery.

Another important finding from Study 1a is that not all groups were involved in (or even aware of) participants' disordered eating recovery. Previous research found that people with an ED often try to conceal their disorder from their groups (e.g., family and friends; Gavin, Rodham, & Poyer, 2008). Therefore, the current findings could be due to participants' desires to keep the disordered eating hidden from friends, even during recovery, although again, qualitative information is necessary to explicitly understand the context behind groups being classified as 'uninvolved' in recovery. The inclusion of uninvolved social groups within social identity networks of those in ED recovery suggests that not all groups need to be aware and supportive of the ED recovery. The composition of these social identity networks mirror the social worlds that SIMOR suggests people going through a recovery process should seek: a network that contains groups that are recovery supportive and break away from the groups that may be detrimental to their recovery (Best, Beckwith et al., 2016). The complexity of social group support for disordered eating recovery is a component of Study 1 which will be unpacked further in Chapter 5. From this data alone, conclusions cannot be drawn regarding the importance of groups throughout disordered eating recovery, as this is merely a snapshot of relevant groups. Therefore, Study 2 within this body of work will longitudinally explore the role of social groups throughout disordered eating recovery, to develop Study 1a findings (please see Chapters 6 and 7).

Overall, these oSIM findings highlight that within this recovering/recovered sample, there were overwhelmingly more supportive groups than unsupportive groups (e.g., only 6 groups out of 110 were reported as being 'unsupportive of their ED recovery'). However, not every aspect of participants' oSIMs was positive, as there were 'incompatible' and 'very incompatible' groups that often had opposing views or wishes for the person recovering (e.g., hobby groups being incompatible with treatment teams). Again, the reasons behind why these 'incompatible' and 'very incompatible' social identities and were maintained cannot be ascertained through this study. Nonetheless, this finding differs from the Social Cure perspective's assertation that people seeking recovery need to disassociate themselves with any negative and/or recovery-incompatible identities in order to succeed in their recovery (Best, Beckwith et al., 2016; Iyer et al., 2009). Therefore, further investigation into why ties to negative and unsupportive groups were maintained even into recovery would be necessary to fully understand this finding.

4.6. Study 1a: Conclusions

Study 1a provided initial understandings on the social identity networks which those in disordered eating recovery belong to (addressing research question 4.1.), highlighting that the composition of these networks is complex. oSIM succinctly and comprehensively displayed the 10 types of groups reported (e.g., family, friends, work colleagues, and opinion-based groups), suggesting that each social identity network within Study 1a was varied (addressing research question 4.2). Additionally, participants reported between 3-15 social groups within their social identity networks, showing that people in disordered eating recovery belong to multiple groups (again addressing research question 4.2). Regarding the composition of these social groups (research question 4.2) this again was varied, all participants reported being happy with their social identity networks, however, not all of the groups encompassed within these networks were positive. oSIM provides a good base of initial knowledge about the types of social groups involved in disordered eating recovery for future work to build on.

Additionally, Study 1a is the first study to explore oSIMs with a qualitative component, participants' reflections on oSIMs revealed their social groups changed throughout their disordered eating recovery and oSIMs would subsequently reflect their stage of that process (e.g., the more acute their disordered eating symptoms, the smaller and less positive or representative their oSIMs would be). All participants self-identified as recovering/recovered and reported being broadly happy with their current oSIMs; this could reflect their recovering/recovered position in their life with disordered eating. This analysis successfully addressed research question 4.3, as findings showed participants perceived their social identity networks to have changed over the course of their life with disordered eating, but social groups had become more positive and representative through recovery. However, through this retrospective study, claims of social identity change throughout disordered eating recovery should be made with caution. As such, further research should be conducted to further verify these findings. Finally, participants comments suggest that the visual elements of oSIM clearly highlighted their social identity networks, leading most to realise that they have more social groups than they originally thought. As such, it can be argued that oSIM was a suitable and useful resource to use within this investigation. oSIM was not only useful through its visual attributes, but through its interactive and engaging properties (addressing research question 4.4). No conclusions on the context and meaning behind participants' reflections on their oSIMs having changed over time can be drawn though Study 1a alone. Study 1b (Chapter 5) will explore participants experience of the disordered eating recovery process (from development through to their current position in recovery), with the aim of establishing an understanding of how social identities feature throughout this process and comprehensively address thesis objective 2.

5. Study 1b : A Constructivist Grounded Theory Investigation into The Role of Social Groups Throughout Disordered Eating Recovery

5.1 Study 1b: Chapter overview

The previous chapter presented initial investigations into the social identity networks held by those in disordered eating recovery that highlighted these networks were greater and more complex than initially expected. Additionally, Study 1a alluded to some of the complexities within these social identity networks. For example, not all groups were supportive or unsupportive of recovery, some groups were uninvolved with the disordered eating recovery but were not viewed negatively. However, the nature of social identities within disordered eating recovery was only partially unpacked. Study 1a highlighted that social identity networks would have changed throughout life with disordered eating, however, the context behind this was discussed throughout the main interview portion of Study 1. Therefore, the investigation into the role of social identities within disordered eating is being continued in this current chapter. This current empirical chapter will present Study 1b, the second element of Study 1: A Constructivist Grounded Theory investigation into the social groups involved throughout life with disordered eating (e.g., from the development of disordered eating through to the current position in recovery). Additionally, this chapter will provide further context behind some of the social identity-based complexities initially presented in Study 1a (e.g., social support). More specifically, interviews were used to explore the role social identities have throughout disordered eating recovery. A constructivist grounded theory (CGT) approach was undertaken for the analysis of this qualitative investigation, as such, a series of categories and sub-categories will be presented alongside illustrative participant extracts.

As discussed in Chapter 3, the mixed method nature of Study 1 utilised a fully integrated convergent design that involved collecting both qualitative and quantitative data at the same time. Both the quantitative (Study 1a) and qualitative (Study 1b) data were analysed separately, the results are then merged before any interpretation could be made on the overall study (as depicted in Figure 4.2). Therefore, as the previous chapter presented the quantitative element of Study 1 (oSIM), this chapter will present the analysis of the qualitative component of Study 1 (CGT). Following the discussion of Study 1b relevant data and interpretation, Study 1a and Study 1b findings will be merged leading to the interpretation of Study 1 data overall. Finally, the conclusions from Study 1 will be presented.

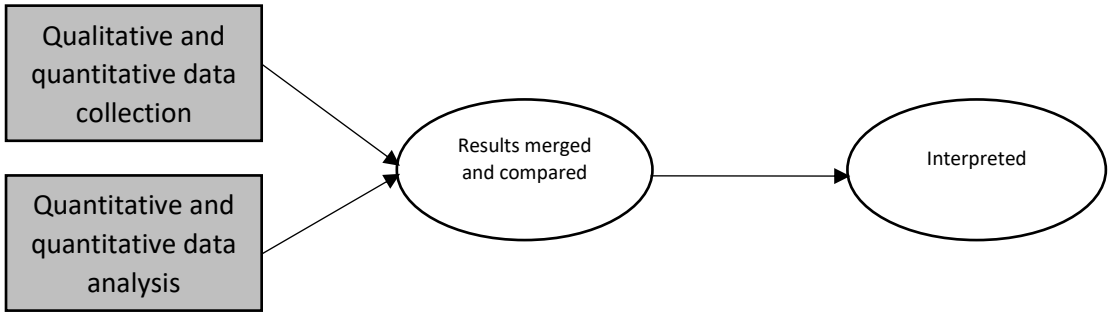

Figure 3.2. The fully integrated convergent design of this study. Adapted from Creswell & Clark (2017)

5.2 Study 1b: Rationale

As addressed in the previous chapter, relatively little is known about how social identities feature throughout disordered eating recovery. As the conclusions from Study 1a showed, many non-disordered eating related social groups (e.g., family, friends, and hobby groups) are important and relevant to those recovered/recovering from disordered eating. From Study 1a alone, delving into the meaning and context behind those social groups and their role within participants' lives was limited, as it focused on their current social groups. Further investigation was warranted, which is where Study 1b aims to enhance Study 1a and will address thesis objective 2. Participants also suggested their social identity networks would have changed over time (and will continue to do so) in Study 1a, but our understanding of this could be further

enhanced through an in-depth investigation of social identities throughout peoples' disordered eating recovery. This current analysis (Study 1b) is an exploration of the roles social groups played throughout development of disordered eating, life with disordered eating, and recovery to better understand the history behind the social groups that participants currently belonged to, addressing thesis objective 2. People with disordered eating have smaller social worlds than those without disordered eating and this lasts even once in recovery (Striegel-Moore et al., 2003). However, as disordered eating recovery is the main interest of this thesis, the main focus of Study 1b will be investigating the role of social groups throughout recovery.

One of the main findings from Study 1a was that social support was more complex than initially expected – groups were not just supportive or unsupportive, but uninvolved groups also existed that were neither directly supportive nor unsupportive. Within Social Cure literature social support is considered an important social resource provided by groups (Haslam et al., 2005). Social support is also considered an important resource for people seeking disordered eating recovery (Linville et al., 2012). As such, Study 1b aims to unpack the nature of this 'uninvolved' social group and develop an understanding of how this type of group differs from the supportive and unsupportive of disordered eating recovery groups. Further exploration into the nature of social groups held by those in disordered eating recovery could provide the necessary meaning behind social support being more complex, again this addressing thesis objective 2.

5.3. Study 1b: Research aims and questions

As there is a lack of consensus on what disordered eating recovery is, despite a breadth of research on the topic (Bardone-Cone et al., 2018; Wade & Lock, 2019), it was deemed important to explore throughout Study 1b. No concrete understanding and definition of disordered eating recovery exists. Therefore, further investigations providing additional knowledge and perspectives on this topic is essential, to aid the process and success in developing an agreed upon definition of social recovery within disordered eating recovery. This is therefore one of the main aims of Study

1b, to explore what disordered eating recovery looks like to those who identify as in recovery/recovered from disordered eating (addressing thesis objective 1).

It was also thought that Study 1b would complement Study 1a conclusions as these were both collected concurrently. More specifically, this study aimed to provide an in-depth exploration of the social groups relevant throughout peoples' life with disordered eating (from development through to recovery). The main focus of Study 1b was to develop an understanding of the context behind the social groups that people recovering/recovered from disordered eating currently held. Exploring the history of these social groups would provide a more rounded understanding of the role each social group holds within recovery efforts. Therefore, exploring how the role of social groups changed throughout life with disordered eating was central to Study 1b. Due to the little knowledge held about social identities in disordered eating recovery, and the nature of the constructivist grounded theory the researcher developed the following research questions:

5.1. What does disordered eating recovery mean to those in recovery?

5.2. Are social groups involved throughout disordered eating recovery? If so, what is the role these social groups have throughout this recovery?

5.4 Study 1b: Qualitative model

5.4.1. Methods

Design

This study involved semi-structured interviews with people who self-identified as in recovery/recovered from an ED. Interviews were based around participants' desires and expectations of recovery alongside their life with disordered eating and their recovery process. Within this, the focus was on social groups involved at any stage of the disordered eating, the

impact these groups had on recovery, and the impact that living with disordered eating had on these social groups.

Participants

The same fifteen participants who participated in Study 1a (discussed in the previous chapter) also completed this component of the study, evidenced in Table 5.1. However, one additional participant only completed the interview portion of the study. As such, sixteen participants (14 females, 2 males; M_{age}=28 years, *SD* =12.27, *age range* = 18-62) were included within this qualitative analysis. Again, as with Study 1a, as not all participants had received an official diagnosis, it was appropriate to utilise the term disordered eating to represent all participants.

Table 5. 1. Participant Information; Study 1b

Name*	Age	ED diagnosis	Position in recovery	Place of residence
Montana	18	Anorexia Nervosa	Recovering	North West
Imogen	62	Bulimia Nervosa	Recovering	North West
Lisa	26	Bulimia Nervosa	Recovering	South West
Lily	26	Anorexia Nervosa	Recovered	South East
Emma	22	Anorexia Binge/Purge Type	Recovering	No data
Sarah	29	Anorexia Nervosa & Bulimia Nervosa	Recovering	Northern Ireland
Alice	21	Anorexia Nervosa	Recovering	South East
Anastacia	26	No ED Diagnosis	Recovered	West Midlands
Madeleine	48	Bulimia Nervosa	Recovering	East Midlands
Richard	No data	Anorexia Nervosa	Recovered	No data
Jimmy	22	Anorexia Nervosa	Recovering	South East
Sally	23	Anorexia Nervosa	Recovering	East Midlands
Milly	19	Anorexia Nervosa	Recovering	East Midlands
Lucy	27	Atypical Anorexia Nervosa	Recovering	South East
Erica	21	Anorexia Nervosa	Recovered	East Midlands
Laura	21	Anorexia Nervosa	Recovered	East Midlands

* All names provided above are pseudonyms

Data collection

Participants were provided with an information sheet and were able to ask any questions before agreeing to take part. Sixteen interviews (M_{length}= 95.66 minutes, *range*= 33 – 133 minutes)

were conducted via Skype or face to face, depending on the participant's preference. Participants had these two interview options to ensure they were as comfortable as possible taking part. Eleven participants opted for Skype interviews (either with or without video), and five chose face to face interviews. Face to face interviews were completed in an experimental lab room at Nottingham Trent University. For the Skype interviews, the researcher was based in an experimental lab room at the university, but participants were able to choose a place in which they felt safe and comfortable to talk about their experiences. Also, knowing not all participants' disordered eating history was common knowledge to their family/friends/colleagues, it was important to ensure that they would not be disclosing information around others who were not privy to this previously. As such, each participant was advised about the nature of the interview, and that it would be best to ensure they completed the interview somewhere they felt able to talk freely about their disordered eating and social groups. Asking before-hand, when arranging the interview, if there was anything they would not want to discuss because of their environment (e.g., being at work) allowed the researcher to reassure participants that their best interests were at the forefront of this study. Therefore, when arranging the Skype interviews, participants were asked where the interview was taking place (e.g., at home or at work), whether they were alone or not (e.g., whether other people could hear the conversation) to ensure participants were in a safe place as discussed when arranging the interview. It was also important to enquire as to whether participants had access to support if they became distressed at any point.

Another important consideration before conducting these interviews was to have a distress protocol on hand should any participants show signs of discomfort or get upset. If a participant were to become distressed, the recording would be stopped until the participant stated they could continue, or the interview would be terminated. If a participant at any point stated that they wished to stop and not continue their wishes were granted. If any participant showed signs of discomfort or upset (i.e., becoming tearful, if they shut down and limit their answers or begin discussing risky behaviours). Should any of these situations have occurred, the following steps would have been taken: first, immediate support would have been offered by asking them what

could be done to make them more comfortable (e.g., show them to the universities toilets, ask them whether there is anyone they wish to contact etc.). Participants would also have been asked if there are any topics, they wanted to talk through to alleviate any immediate concerns for them to feel in the right frame of mind to make their journey home, to continue with the interview, or to continue with their day. Should they have been able to resume the interview they would have been reassured throughout the rest of the tasks and reminded that they did not have to do anything that they did not want to do. But for those not able to continue, they would have been reminded at this point that the researcher was not a health professional and that any serious issues would be best discussed with a professional to maintain their recovery. Secondly, the researcher would have recommended that they contact their own GP, however, should they not want to discuss anything with their GP it would have been stressed they contact one of the eating disorder support sites (some of which were provided on the debrief sheet) and then they could have taken the next suitable course of action. It would have been essential to ensure that no-one left the interview in a distressed/upset manner, and they were made aware of this before starting the interview as another way of making them feel more at ease that should they have felt distressed they would have felt comfortable to discuss this without hesitation.

Prior to data collection, all participants were provided with an information sheet about the nature of Study 1. All participants signed a consent form either online or in person and provided demographic information. All participants were informed that they were not required to take part in the study, that they had the right to withdraw without explanation, and that they were not required to answer questions that they did not want to. All interviews were recorded using a dictaphone, and permission to do this was obtained before each interview began. At the end of the interview each participant was given a debrief sheet containing the researcher's contact details, and the contact details of their director of studies. The debrief sheet also contained contact details for ED charities that participants could contact should they wish to discuss any issues or concerns after taking part.

Materials

The interview schedule was developed from a literature review. As little is known about social identities throughout disordered eating recovery, the researcher decided that this study should explore the whole of life with disordered eating, to effectively develop a well-rounded understanding of social identities in disordered eating recovery. The interview schedule thus followed life with disordered eating, focusing on questions which reflected the general stages of disordered eating: life before the disordered eating, when the disordered eating developed, the participant's illness experience, and their subsequent recovery. Within these broad topics, questions were designed to explore participants' thoughts and feelings about each stage/event in their journey (e.g., *What does recovery mean to you?*); their social life at each stage (e.g., *Can you talk to me about your social life when you were living with your ED?*) and what their social groups (e.g., family and friends) felt/ thought throughout those stages of the disordered eating (e.g., *When you believed you had your illness/were diagnosed what was this like? What was it like for yourself, and for your friends and family?*). Following the semi-structured interview, participants completed the oSIM portion of the study (as discussed in the previous chapter) and the interview schedule also included the script utilised throughout SIM. The complete interview schedule can be found in Appendix 6.

Analytic Procedure

Interviews were transcribed verbatim and analysed using an abbreviated version of constructivist grounded theory (Willig, 2013). Constructivist grounded theory (CGT) was appropriate for this study, as the goal of CGT is to explore how and why participants construct meaning in specific situations, thus placing priority on the phenomena of the study to produce an abstract understanding of a topic rather than explanations (Charmaz, 2006). More specifically, CGT is underlined by the understanding that people construct the realties they experience and, as such, this method focuses on addressing how realities are made (Charmaz, 2006). CGT

acknowledges that the researcher is unable to fully separate themselves and their experiences from the research or be completely objective (Charmaz, 2006). Thus, in CGT it is thought that the socially constructed realities of both the researcher and participant underly the data to provide an understanding of a topic, rather than an explanation of the topic (Charmaz, 2006). The CGT inquiry begins with the experience and construction, while also acknowledging that the interpretation is itself a construction that could be interpreted differently and lead to a different construct (Charmaz, 2006). Ultimately, CGT views reality as social and explores experience within its social context (Charmaz, 2017). Since little is known about social identities throughout disordered eating recovery, developing an in-depth understanding was necessary before having the ability to provide explanations. Also, as the overall aim for this thesis was to explore social identities within the context of disordered eating recovery, the core elements of CGT aligns with the current research.

Additionally, as the researcher was conducting the whole research project (i.e., data collection, transcription, analysis, and interpretation) it would have been difficult to be completely distant from the participants or the data. This is acknowledged and accepted by CGT and integrates reflexivity into the analytical process (e.g., through memo-writing; Charmaz, 2014). The key stages of the constructivist grounded theory analysis were followed: an initial coding stage, followed by focused coding, and then these focused codes were redefined to create categories and sub-categories, while engaging in memo-writing throughout (Charmaz, 2006; 2014).

It is important to note that this current study utilised the abbreviated version of CGT rather than the full version (Willig, 2013). The full version requires the researcher to collect a portion of the data, then explore this initial data through initial coding to develop tentative links between categories and then the researcher collects data again informed by the emerging theory from the first round of data collection (Charmaz, 2006). However, the abbreviated version, as utilised within this study, works with the original data only. The core processes of CGT as outlined above were followed but only for the original dataset (Willig, 2013). Due to the constraints of the overall

thesis plan (i.e., that CGT forms Study 1b, which is one component of Study 1, which in turn is one element of the whole mixed method thesis) it would not have been feasible to conduct a full CGT study.

The first step in the CGT analytical process was the initial coding, where the researcher employed line-by-line coding to gain insight into missing data and what could potentially be asked in subsequent interviews to address this gap. This coding stage also involved the creation of codes closely aligned to the data – these are open to interpretation and change throughout the analysis. The aim of this coding was to work quickly, keeping the codes created short and in line with the data that could form low level categories. Due to the current CGT being the abbreviated version, to compensate for the small data set (by only using the original data), the researcher engaged in more in-depth analysis of the line-by-line coding for each of the interviews. It was important to make comparisons between the data and emerging categories that encompassed these initial codes. This phase of the analytical process is the start of the conceptualisation of the research by defining what is happening in the data and developing an understanding of what this means. Memo-writing was an important element of CGT analysis, however, it was especially important within this abbreviated version, to allow for the researcher to analyse their thoughts around coding and codes to engage in data comparison.

After engaging in initial coding came focused coding. The focused coding was a more directed and conceptual element of the analytical process. This involved organising the initial codes to establish the most significant and/or frequent codes throughout each interview. Once this was identified, it was important to decide the codes that were the most appropriate in categorising the data and then check this for the whole data set. Through the process of comparing the appropriate codes to the data and exploring whether there were any gaps in the data these codes did not account for, the researcher was making decisions regarding the meaningfulness of the data. This process led to clusters of initial codes being gathered that appropriately represented the data. Through exploring these clusters the researcher raised categories which encompassed these clusters of codes. Therefore, through this focused coding the initial codes are turned into

categories. As CGT allows for the utilisation of more than one significant category, providing it appropriately fits with the data, the current analysis identified both categories and sub-categories.

5.4.2 Qualitative analysis

5.4.2.1 Theoretical model: Overview

The analysis exploring disordered eating recovery and social groups is represented through an overarching category of 'desire for 'normality''. Several categories underpin participants achieving this 'normality' and are encapsulated by the following categories: 'selective disclosure'; 'withdrawing from unsupportive groups'; 'maintaining supportive groups through disordered eating recovery'; 'acquiring new non-disordered eating associated groups'; 'acquiring new ED-recovery groups'. The relationships between these categories are depicted in Figure 5.1. More specifically, the analysis revealed that participants' desires and expectations for their disordered eating recovery involved a wish to return to 'normality'. Participants sought a 'normality' within their lives that meant living day to day without their thoughts and behaviours being dominated by their former disordered eating patterns. The analysis below will further delve into the context of 'normal' within this study. To achieve a sense of 'normality', participants' social groups appeared to have an important and multifaceted role throughout the recovery process, and throughout life with disordered eating many changes occurred to these social groups. Social group involvement throughout the recovery was complex, as participants did not actively include all their social groups in their recovery efforts, and this selectivity affected their groups. It was important to feel supported and accepted when disclosing their disordered eating with their social groups. As such, participants distanced themselves from groups deemed unsupportive due to those groups being incompatible with participants' desires for 'normality'. On the other hand, supportive groups were maintained, and connections with these groups were often strengthened throughout recovery.

Participants often had a variety of reasons behind concealment of their disordered eating from some groups; mostly to allow them to appear 'normal' and not be impacted by the ED label. The analysis showed participants' social groups had to adapt and change alongside the person recovering. These adaptations revolved around the social groups seeing the person as separate from the disordered eating, and thus, acknowledging the person recovering for the person they wish to be in their recovery. Therefore, social groups participants belonged to were both influenced by the recovery and influential in participants' achieving their recovery goals.

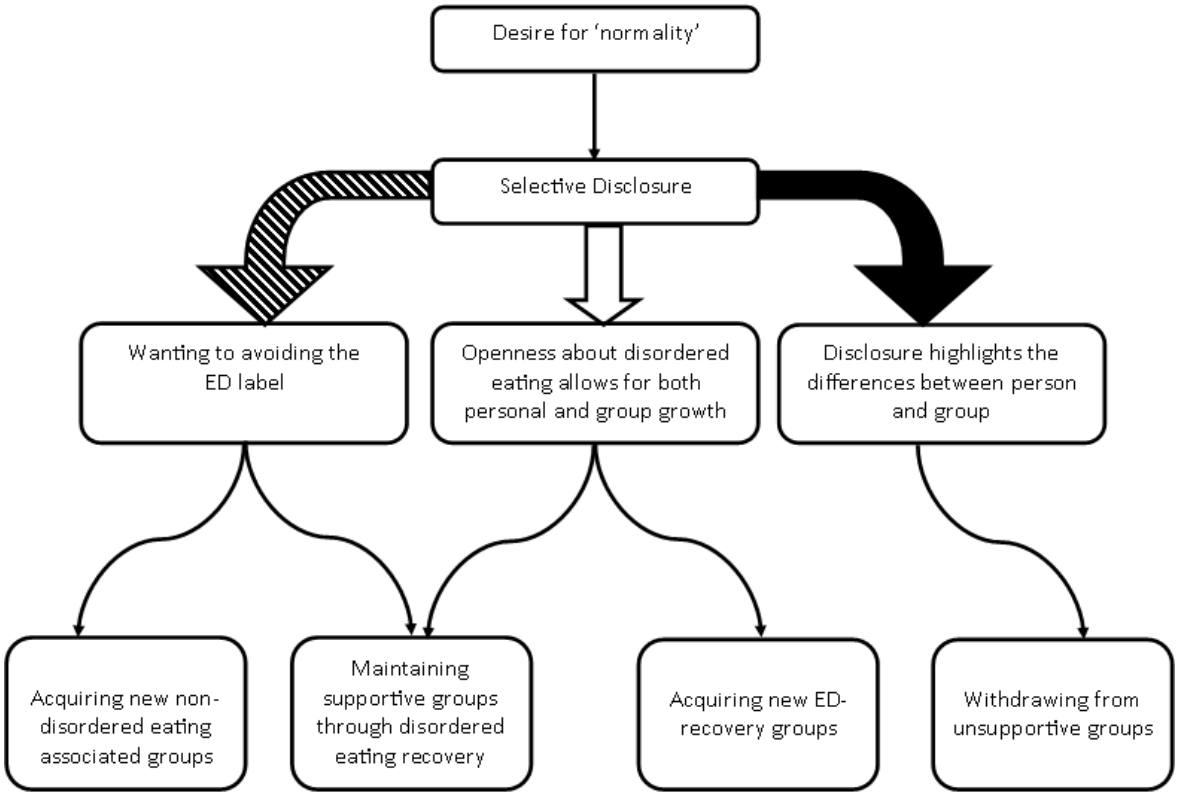

Figure 5. 1. Constructivist grounded theory model for participants desires for their recovery and the relationship social groups had within this. The thicker striped arrow reflects when participants did not disclose about their disordered eating to their groups and experienced positive repercussions. The thick white arrow represents when participants positively disclosed to their social groups, and finally the thick black arrow reflects when participants experience negatives to their disclosure of their disordered eating. The thinner arrows represent participants journey to their recovery desires in relation to their groups.

5.4.2.2 Desire for 'normality'

The overarching category for this analysis encompasses participants' desires for disordered eating recovery; a major aspiration for participants was to achieve a feeling of 'normality' in their lives. Not all participants wanted to return to the 'normal' life they had before their disordered eating developed, but to have what they saw as 'normality'. Predominantly participants referred to this concept of 'normality' as being able to live without disordered eating thoughts and behaviours. More specifically, the goal was for disordered eating-related attributes to no longer dominate their lives. This is highlighted by Sally below, who talked about not thinking about disordered eating thoughts and behaviours and having a balance between food, exercise, and views of herself, being central to her recovery:

INT: *what does recovery mean to you?*

Sally: *Erm, getting to the point where food or body image or anything like doesn't come into my head"* [INT: *Yeah*] *Doing day to day things, and just being at a point- just having a healthy relationship between food and exercise and the way I think about myself and yeah not, not using any behaviours and just yeah just kind of being happy in myself and having a balance, I think, I think that's the main thing*

These thoughts and behaviours were associated with not being perceived as 'normal', however, not all participants expected that they would ever be 100% fully recovered. There were two main reasons behind this; first, some participants did not think it was possible to ever be completely separated from those former behaviours and/or thoughts. As such, a considerable number of participants described how they aimed for being around 90%-95% recovered, as illustrated by Jimmy below.

Jimmy: *I feel that I want to do is to be as normal as possible because there are some things that may never be fixed totally and the best that I can do is to get to 90% recovered that means that I'll be able to do things that I wouldn't be able to do before or I wouldn't allow myself to do before. So, go out places with family and friends, not be worrying*

Therefore, for some, being 'normal' was not necessarily about removing all traces of their former disordered eating from their lives (as they perceived this goal to be unrealistic), but to no longer be guided by their previous disordered thoughts and behaviours. Suggesting that it is more than being 'normal' that participants sought for their recovery: it was about a sense of 'normality' within their lives.

The second reason behind not seeking 100% recovery was because some still saw a place for their disordered eating behaviours and/or thoughts in their lives. Most commonly, the disordered eating had been intertwined in their lives for such a considerable time, that relinquishing these reliable and reassuring disordered eating thoughts and behaviours was a complex issue. As such, it was discussed that whilst participants sought 'normality', some disordered eating behaviours would remain, as for them this was their 'normal' coping mechanism. The automatic nature of relying so heavily on these behaviours throughout their lives mean that, for some, it would be problematic to stop utilising these. As highlighted by Imogen, who discussed that for her, recovery is about being open regarding her eating and not engaging in binging and purging, but she does still utilise some disordered eating behaviours within her everyday life. Therefore, it could be suggested that for some, like Imogen, being completely rid of the disordered eating behaviours is not necessary for them to identify as in recovery.

> Imogen: *I would say that in some respects I still have some of the traits* [of Bulimia Nervosa].[…] *I said that I am not ever going to diet again. So, I'm not going to ever binge or vomit again, so, for the rest of my life I haven't kind of done things like weightwatchers, I haven't gone on strict diets. Erm, however having said that I do keep an eye on my weight, I weigh myself every day and erm, if I think I am getting too heavy I will skip meals and things like that. Erm, I don't as a rule eat lunch, erm because if I do I find I put weight on. So, er, I mean there are still those things that influence my behaviour. But for me my recovery is about, er, just being able to erm, not to have any kind of secrets about kind of eating a lot and making myself sick really*.

Understanding how disordered eating symptomology aligns with participants' notion of 'normality' was an important feature in this analysis. However, participants' desires for recovery stretched further than just their changing relationship with their disordered eating. The 'normality' participants sought for their recovery was more than merely recovering to a point of 'normality'; it was re-engaging themselves in their lives so that they could feel happiness again, something lacking throughout their disordered eating struggles. Participants felt the opportunities provided to them through their disordered eating recovery (e.g., the ability to re-engage in work and social activities) would aid in distancing themselves from their disordered eating-related feelings. Indeed, Milly echoed the sentiments of many participants that engagement in everyday activities would help distract from their former disordered eating behaviours and aid their recovery efforts.

> Milly: *Erm I think being able to just a. be happy, I'm not happy erm at all, like I have happy days but nothing like actual happiness that I used to feel. Erm and I think for me recovery is just being able to go out to work and eat normally, socialise and just have a balance and not have my brain consumed by food and exercise all day.*

A commonly discussed part of participants' recovery was reintegrating with their social groups (e.g., family, friends, co-workers, etc.) after having withdrawn from them as a result of their disordered eating, which often dictated their social lives. Often the disordered eating is considered responsible for peoples' initially becoming more social, but once the disordered eating begins to dominate their thoughts and behaviours, their social life is adversely affected. Participants reflected, from their current recovery perspective, on how their social world began to deteriorate as their disordered eating struggles deepened. For instance, Emma discussed how the disordered eating became her main priority, with her putting it before socialising, and her relationships suffered because even when she was with others, she was not present due to her disordered eating:

Emma: *To start with I actually felt more confident and I had the confidence to go and do social things and then-. So, it felt like a good thing to start with and then as it like progressed into different behaviours it like massively isolated me. So, like not being able to eat around people and eat out and kind of putting my behaviours.* […] *But I would put that before social events and then like if I did eat out with people I would have to come home and compensate in whatever way. Yeah, so it started off in a- yeah it all started off good with me feeling confident and like all of this and then it kind of turned into the opposite and I was really isolated and it affected my relationships with people a lot and all of that.* […] *So, people would say that when they were talking to me they weren't actually talking to me*

This notion of not being present due to their disordered eating was common, and it did lead to changes to social groups. Participants highlighted how the disordered eating was not always understood by their social groups which resulted in some not being able to cope despite attempts to help. As Alice discussed, it was not only that those in her social world could not cope with her disordered eating, but because of her battles with her disordered eating she was no longer at the same stage as her friends and unable to simply return to that group as before. Thus, suggesting that not only was Alice impacted by her disordered eating, but her social world and groups within it also were affected.

Alice: *I think that I definitely felt that people couldn't cope, people- my close friends did remain quite engaged when I started in hospital and things and then when I returned to school I think, I, I just wasn't fully present, and I couldn't do- I had such a big interruption in my like teenage development that I couldn't, I wasn't involved in the same things as them, I wasn't in the same stage in many ways. It was kind of like I had been put on pause and things just didn't come back together in the same way*

Despite, not always being able to engage in their social worlds as before their disordered eating (as experienced by Alice), participants acknowledged that reintegrating into their social groups was an important part of their recovery. Not being seen differently due to their disordered

eating history was integral to this reintegration. Participants wanted to be seen by others as 'normal' once in recovery, and the peoples' ties with their groups were affected by whether or not group members could accept this and allow the individual to 'be themselves' without the disordered eating history affecting interactions. Participants wanted members of their social groups to perceive them as a person with a history of disordered eating (rather than perceiving them as *being* the disordered eating) and accept them as the person they want to be. This was discussed by Lily in relation to some of her social groups.

> Lily: *So, almost those friends who I didn't talk to about it, I could be a bit more me, I wasn't the Anorexia for a little bit.* [INT: *Yeah*] *Erm, because that [the Anorexia] is all what people see. You know?* [INT: *Yeah*] *So, that's all that they see, regardless of whether they know or not then you kinda know. So, yeah, and they don't think that you are a person properly anymore, you're just like the disease. So, the people that didn't really take notice of it* [the Anorexia] *and just treated me normally gave me the chance to be me again.* […] *My, home friends again, just the fact that they see me as Lily is the difference, same with my husband and my newer family'* […] *They've accepted me on my recovery*

This overarching category of participants' 'desire for normality' highlights that 'normality' may not involve ridding oneself completely of all disordered eating behaviours, which is not necessarily an obstacle to recovery. An absence of disordered eating symptomology was sought, but acceptance that recovery may not mean being 100% recovered suggests 'normality' within this recovery context is unique, and more complex than simply returning to one's previous self before the disordered eating. Participants also discussed that not only did their disordered eating impact themselves, but also impacted their ties within their social world. Ultimately, finding a balance for their recovery was a central attribute of recovery, that not only focused on a reduction of disordered eating symptoms, but also how to reintegrate/ situate themselves in their social world. This was largely influenced by participants deciding when, where, and which groups were involved (or not involved) in the recovery process with them, which is unpacked in the category below.

5.4.2.3 Selective disclosure

Ultimately, to achieve 'normality', participants' social groups played an important role. Participants were selective in who, what, where, when, and why they disclosed to their social groups about their disordered eating. This category encompasses participants' experiences regarding their disclosure of their disordered eating to their social groups. Participants did not always want their social groups to be aware of their disordered eating, regardless of what stage of the journey they were at (e.g., development or recovery of their disordered eating). Discussing their disordered eating was often unavoidable with certain groups (e.g., important groups or groups with which the participant had high levels of contact), however, some participants had the option to choose whether to include their social groups in their disordered eating recovery. Sometimes participants chose to disclose their disordered eating because they wanted to be honest and open in order to facilitate their recovery. However, it was also common for participants not to disclose their disordered eating to their groups for a variety of reasons: from not wanting to be known as 'the person with disordered eating', to wishing to avoid their eating behaviours being monitored by their groups. This current exploration of selective disclosure highlights a complex process, and as such is unpacked within three sub-categories of 'wanting to avoid the ED-label'; 'openness about disordered eating allows for both personal and group growth'; and 'disclosure highlights differences between person and group'.

Wanting to avoid the ED label

The first sub-category of 'selective disclosure' is 'wanting to avoid the ED label'. This was arguably a common reason behind participants choosing not to disclose their disordered eating. Not wanting to be associated with the disordered eating once recovering/recovered stems from participants' desires to be seen as who they are without the ED label/stigma that is often attached to them for having disordered eating. Therefore, choosing to disclose was a complex process that impacted the recovering individual's ability to be considered a 'normal' group member. However,

being afforded the opportunity to allow their groups to accept them as who they wish to be without any risk of the disordered eating impacting them was an important part of participants' recovery. As highlighted by Alice, who discussed not disclosing her ED to others but allowing them to know her for her without any association to EDs.

> Alice: *I felt that people needed to make up their minds up about me or make judgements about me without having preconceived ideas of the eating disorder*.

Participants engaged in selective disclosure throughout their life with disordered eating, starting at disordered eating development, and even through to being recovered. One of the most common reasons behind their decisions to not disclose (once in recovery) seemed to relate back to their desire to be seen as a unique person, rather than as 'a person with disordered eating'. It could be suggested that by not discussing their disordered eating history with their social groups, participants could be seen as 'just them', rather than being labelled because of their former disordered eating. Having their groups accept them and allow them to be who they wished to be without being associated with the disordered eating was important for all participants, as it allowed them to move forward as a person. This was highlighted by Erica, who did not disclose her ED history to her work group until they had already accepted her for who she was, so that interactions between her and fellow group members would be less affected by her disclosure.

> Erica: *I specifically didn't tell anyone at work to start with cus I didn't want to be known as the girl with the eating disorder, I just want to go back to being me, so it was really nice. I started there while I was in recovery and just how much I've grown, like they've all noticed that and like my confidence has grown and they've just accepted me as a person which has been really nice*

Additionally, one of the reasons behind not disclosing about disordered eating once recovering/recovered is that the person recovering/recovered does not feel that it is important to share this information with the group. Not feeling that groups needed to be aware of disordered eating history was also common once in recovery/recovered. For those who did not disclose their

disordered eating history to new social groups, like Laura, felt that there was no need to discuss her disordered history with some of her social groups because she had already recovered.

INT: *Is there any reason they* [these groups*] don't know about it* [disordered eating history]*?*

Laura: [Religious group] *was just because I joined after I had already recovered, and I don't think that they needed telling. Erm, that's the same with [hobby group], I only joined this year so there wasn't really any need to tell them* […] *it's also nice to have people not know about it at all cus they're just thinking you're a normal person*

It was common for participants to engage in a mixture of disclosure and non-disclosure to their social groups. However, three participants were extremely selective in disclosing their disordered eating past, electing to only confide in one or two groups, or even just select members of their groups. Despite this, these three participants currently belonged to between three to fifteen social groups (within their oSIMs in Study 1a). These participants detailed a mixture of emotions involved in that decision-making process, including fear of not being believed, as they did not meet the typical criteria that they thought PWEDs possessed. These participants chose not to confide in others to protect themselves from feelings of shame and weakness, which they believed would come because of other people's negative opinions and perceptions of them because of their disordered eating. This was a sentiment voiced by Lisa, who kept her disordered eating hidden from her family because she did not want to appear weak to them, but also because she wanted to prevent any negative repercussions from them not fully understanding or being able to cope with her disordered eating recovery. She later stated that she would like to be able to discuss her disordered eating with her groups, but her fear of experiencing negative reactions from them was why she was unable to share her journey with others.

Lisa: *I have never told anyone and I am now 26*

INT: *Oh, erm is there any reason why you haven't told anyone?*

Lisa: *Err, well I think that one of them is because I don't want people to think that I am that weak, because I am always erm. I have always tried to be a strong, to be, you know*

to give image of success of happiness erm. Yeah, so, it was impossible for me to really show what I, what I was suffering. I don't want- I feel very, very, very embarrassed. I know that I shouldn't, but I do, erm and also because some people in my life, such as my sister, my father, my mother especially my mother. I don't think she would be able to cope with it.

The aforementioned small number of participants that discussed their disordered eating past with only one or two of their social groups, and one participant only discussed it with their treatment team and the researcher. Through this incredibly selective way of disclosing their disordered eating past they were able to maintain the sense of 'normality' that all participants ultimately wanted through their recovery, without being forced to deal with any potential feelings of shame they may have encountered by discussing the diagnosis with their social groups. By remaining in complete control over the groups allowed to be part of their recovery, when and how involved these groups become, people avoid suffering any of the negative effects they believe they will experience if their groups become aware of their disordered eating. As Madeleine discussed below, because of her work friends' comments on other people's personal circumstances, she expects that they would have similar (negative) reactions to her disclosing her own history. Thus, by not disclosing, she protects herself from their potentially negative reactions.

Madeleine: *a lot of people don't know* [INT: *Yeah*] *There's people there that I probably wouldn't- like work friends I wouldn't because you know when you hear people talking about things and you hear people have their opinions about stuff. I would think oh I wouldn't tell them because I wouldn't want to be judged or listen to their opinion.*

Groups unaware of the disordered eating would not be able to associate the participant with disordered eating (and related stigma/stereotypes). However, concealing the disordered eating from others may not allow for links to be drawn between the person and disordered eating stereotypes, there is a chance that they would be exposed to these negative attitudes anyway and thus suffer the negative consequences they are attempting to evade, as with Madeline. Even

when concealing her disordered eating history from her work friends, Madeline is still exposed to negative attitudes. It can be suggested that although concealing disordered eating can be seen positively, it may not be as positive as the person recovering thinks.

Despite this, some participants became much more selective regarding when they disclosed their disordered eating past, and to whom, the further they progressed through their recovery. Participants that identified as recovered described how they would not necessarily disclose their disordered eating history to new social groups that they joined post-recovery. Participants discussed not being ashamed about their disordered eating past, but they acknowledged that informing some groups could lead to them no longer being considered 'normal' due to this ED label. This was something discussed by Emma:

> Emma: *I would like to be able to talk to maybe my work placement about it [disordered eating recovery] at some point but I don't, I don't know. I don't want it to be something- it's not something that I like hide and like that I'm ashamed of but it's something that I would like some support with in other environments. Erm, so when I'm at work and that kind of thing, because sometimes I think I'm putting on a front because I just want to be normal*

Emma's dilemma about not wanting to be ashamed about her disordered eating history, but also wanting to be 'normal' echoes similar thoughts throughout other interviews, in that openness about their disordered eating would allow them to be true to themselves, but has potential risks associated with disclosing about their disordered eating. This was mostly attributed to new groups, acquired since they were recovering/recovered from their disordered eating, and participants were often still figuring out their role and position within these new groups. As such, participants' logic in these situations was that if they themselves were no longer concerned about their disordered eating then neither should others. They also felt that if they did not require support regarding eating behaviour then it was unnecessary to disclose this to their social groups.

Disclosure highlights the differences between the person and the group

The second sub-category of 'selective disclosure' is 'disclosure highlights the differences between the individual and the group'. As addressed in the first sub-category, concealing disordered eating can allow participants to remain who they want to be within their groups, without the risk of suffering as a result of the stigma associated with EDs. Even though the disordered eating itself makes the person different from other group members, if the group has no knowledge of their disordered eating history, their ties to their groups cannot be negatively impacted. However, not all participants are able to hide their disordered eating from their social groups. Once groups are aware of the disordered eating, the person recovering will be open to their group members' opinions and reactions to their disordered eating recovery, which can be positive and negative. Participants' experiences of this are explored in this sub-category.

Some participants discussed the negative aspects they experienced once they had disclosed their disordered eating to their social groups (these tended to be close family and friend groups). An issue that arose as a result of participants discussing their disordered eating was the feeling of being 'under surveillance' by members of close social groups. More specifically, the focus of participants' social groups shifted from observing the participant as a typical group member who is treated no differently to other group members, to instead focussing heavily on the person's disordered eating related behaviours. The feeling of being 'watched' was reported from the initial stages of the recovery; some disliked this feeling, but equally others were aware of the positive intentions behind group members watching them. As Milly stated, she knew her family just wanted to look after her and support her by not letting her revert back to her former disordered behaviours. She therefore saw her family's monitoring in positive terms.

> Milly: *I think just the final thing for my recovery personally, was family. Just they would- and that's why I think probably a lot of people say they come out of hospital- like inpatient treatment and relapse, because they've not had their family there.* [INT: *Yeah*] *And I think that your family need to understand with you how to get better, so I know that my family*

watch me like a hawk when I'm eating and things to make sure I don't get back here [INT: *Yeah*] *And I think that you need that because you know like it can take over you so quickly*

This observation and monitoring is persistent: participants reported witnessing these behaviours even once they considered themselves in a good place in their recovery. Participants' groups continually focusing on the person recovering because of their disordered eating by only being concerned about their eating within the group or by the actions they take, reminds them that there is this difference between them and the rest of the group. Subsequently, they feel their behaviours will be judged differently to those without a history with disordered eating. For instance, Alice described how members of her groups become concerned when she skips a meal, even though the same behaviour would not be concerning if it were engaged in by other group members. Therefore, her actions, even when in recovery, are still being judged because of her former ED, and this is experienced due to her disclosing about her ED.

Alice: *I know it's cliché to say but the things that are kind of normal in a non-eating disorder population, then become problems for people with eating disorders and it's like, is it or isn't it a problem for someone who has had an eating disorder to skip breakfast, like you know it's just interpreted differently based on your history*

Additionally, others may not necessarily be drawing attention to and/or examining their eating behaviours for negative reasons, but it was seen by some participants as unhelpful. Going further, Sarah described how group members would make comments about what she was eating and draw attention to her food, and how this would impact negatively on her. Again, such behaviour signals that the person recovering is doing something different to the rest of the group, thereby bringing unwanted attention to them.

Sarah: *Erm, it's- I know a lot of people with eating disorder hate this aspect of like recovery that people are always watching their food and things. I- I understand that completely, I remember going through it and going oh just shut the fuck up, especially because sometimes people, erm, people kind of draw attention to your food when you don't want attention to be*

drawn. And actually, that can still bother me sometimes people go like oh you're eating this, and I'm like please don't actually draw attention to that

These initial two sub-categories have focused on why people recovering chose to not disclose about their disordered eating: to prevent any negative repercussions, many of which were experienced within the second sub-category. By disclosing about disordered eating their social groups would then be more likely to judge the people behaviours based on the stigma of an ED and not of the person as they wish to be: 'normal'. However, the final sub-categories within 'selective disclosure' focusses on the positive sides to disclosing about disordered eating; 'being open and honest about disordered eating allows for both personal and group growth'. Only once someone is open about their disordered eating can their social groups learn and aid them throughout this journey. By keeping their diagnosis from their groups, they are not affording their social groups an opportunity to better understand disordered eating, which could reduce ED-related stigma.

Being open and honest about disordered eating allows for both personal and group growth

A benefit of disclosing about disordered eating is the openness it fosters between the participant and their social groups, allowing group members to develop a better understanding of the participant. By allowing their groups the opportunity to learn and grow alongside the person recovering, a better understanding of disordered eating and the person's personal journey can develop. Social groups not aware of the disordered eating cannot effectively understand any of the struggles the person faces throughout their recovery, and potentially not support the person in the way that they need and/or desire. Therefore, choosing to disclose with select social groups can allow for group members to grow and develop together, ultimately fostering better relationships among members. This was experienced by Milly, who discussed the importance of being open about her recovery. Involving her family in her life with disordered eating allowed them to develop a better understanding of her and her disordered eating, which subsequently

motivated members of her family group to increase the disordered eating-related awareness of members of other groups in Milly's life, thus increasing her capacity to cope, and making the recovery easier for all parties.

> Milly: *now my friends and my mum's been amazing like and my sister have like contacted my friends and tried to explain it to them a bit like my close friends that I spend time with. So, they sort of have an understanding of what's going on erm, so yeah I think it has made it easier and I think people are just happier that I say I'm struggling now and it's making it easier to say when I'm struggling*

Through confiding in their social groups, interviewees spoke about a level of accountability that their social groups gave them, when they are aware of the disordered eating recovery. Disordered eating symptomology is perceived as abnormal in most social groups, and as such the participant chooses to no longer engage in these behaviours, as doing so would hamper their 'normal' membership of those groups. This accountability is a source of support that social groups may or may not be aware they provide to the person recovering. Many participants reported that being around their social world allowed them to maintain their recovery better than if they were alone. As Sarah discussed, making others in her social world aware of her former ED behaviours means that she cannot slip back into those old habits, because others would see this, and that is not something that she wants.

> Sarah: *I think sometimes having- knowing that I can't just start hiding my lunches or not eating some lunch and things, people are- if I start skipping meals people will notice, so that's been a kind of- that's kind of been, I suppose for me to commit to, you're on the path to recovery and like you're not going to be able to relapse without people being able to see.*

Being open and honest with one's social groups can thus have important benefits for the recovery process. Suggesting that feeling like other group members are being overly observant about one's eating behaviours can be perceived in both a positive and negative light. For some

participants, having their former disordered eating focused upon continually reminded them of this difference between them and their group. However, others find that groups' awareness of their recovery efforts is important, as it provides them a sense of commitment to their recovery, due to not wanting others to see them relapse. This highlights the complex and ever-changing nature of 'selective disclosure', and how it is very much dependent on the nature of the specific group in question.

Overall, this 'selective disclosure' category appeared to underpin the relationships that participants had with their social groups throughout their life with disordered eating. As highlighted throughout this section, participants' decisions around disclosure to their social groups were initially based around how their groups would potentially respond to their disordered eating revelation. As such, the nature of ties to their social groups throughout their life with disordered eating depended on the role/s played by these groups during the recovery journey. Despite not disclosing their disordered eating to some groups, that were then not aware or involved in recovery efforts, these groups were often considered supportive in terms of facilitating participants' desire for 'normality'. Whereas those groups with whom the participant confided in were perceived as being supportive, uninvolved, or unsupportive, depending on how the disordered eating revelation was dealt with by the group/s in question. Due to the impact that groups' awareness of a person's life with disordered eating can have, the following categories will explore the types of groups participants discussed, and how these groups differed in terms of their levels of support and/or involvement.

5.4.2.4 Maintaining supportive groups through disordered eating recovery

The first of these social group-related categories is 'maintaining supportive groups through disordered eating recovery'. This category delves into the times when groups responded in a positive manner to the participant disclosing their disordered eating. Many participants described how their group memberships continued throughout their whole disordered eating recovery. As

discussed in the 'selective disclosure' category, participants often had initial concerns that their groups would respond negatively, would be unsupportive of their disordered eating recovery, and they would subsequently lose those groups (mainly friendship groups). Generally, however, participants reported that this is not what they experienced: in reality, their social groups had actually been supportive and understanding about the disordered eating. Through social groups standing by the participant and supporting them through their recovery, participants retained the resources provided by social groups before the disordered eating, thereby providing continuity for the recovering individual in this time of change.

> Sally: *they're been a lot better than I expected, I didn't think anyone- I didn't expect people to understand and I'd probably lose a lot of friends and they wouldn't want to spend time with me but yeah it's been a lot better*

This surprise at how supportive groups could be, despite the preconceived notions about how others respond to hearing someone has an ED diagnosis, allowed participants to be open and honest about their struggles, without fear of being rejected by their social groups. These long-standing social groups were often a strong source of support, relied on throughout recovery efforts. Indeed, participants' having supportive social groups was one of the most important resources during their recovery; the ability to rely on these groups throughout their journey was crucial to their success.

> Laura: *they* [family] *were just all really encouraging and supportive which like if I didn't have that I probably wouldn't got- I don't know if I would ever have gotten better. I definitely wouldn't have gotten better as fast*

The type of support received from social groups varied, but a common experience was that maintaining group memberships reminded the participant that they were cared for more than they had initially thought, especially at times when their disordered eating was at its worst. Having these consistent groups to rely on both physically and emotionally served as a reminder that there were people out there who wanted them to recover, and would be there for them,

despite their ED diagnosis. Some participants noted they felt incredibly lucky to have been so well supported, and without the consistency provided by their supportive groups, their recovery could have been much harder. Supportive social groups were often heavily involved in participants' life with disordered eating and because of this they developed a deeper understanding of the person's disordered eating than those not involved. This more nuanced understanding of the person and their disordered eating showed the individual that those groups could not just provide support but were also willing to change and learn as the person progressed through their recovery. This deeper understanding was beneficial to the person and their connections to their groups.

> Sarah: *I had friends, friends again who had lived through- I'm actually lucky that I'm still actually friends with the people I was friends with when I was at school before and they could see it happening to me again*
>
> INT: *do you think it's helped having that stability of the same friends?*
>
> Sarah: *Oh yeah, definitely, definitely I think that. I don't think I'd be alive today if it wasn't for my friends even when I was treated in hospital.* […] *I'd been so lucky that they'd stood by me no matter what and yeah I think that having that stability has massively helped me, especially when things start to get bad again and so there are a lot of things that have happened to me that are hard to explain to other people and er. It's- I know when I can talk to them, they know the situation, they know, I don't have to go into mad detail about things, people just even know the weird atmosphere kind of my mental illness you know and when it was at its worse*

Sarah discussed how she felt lucky because of an attentive friendship group that learnt her triggers and the slight changes within her that indicate she is struggling. As these groups, especially her friends, have learned to recognise the signs that she is struggling, they are more able to effectively support her than groups which have not developed this knowledge (and thus may not be best placed to support Sarah). Some participants reported that recovering from their

disordered eating strengthened their bonds with certain social groups, leading to those being some of the most important and supportive group memberships they had, even once recovered. This was discussed by Erica in relation to her family, who had gone through the whole recovery process with her and not only did her family members become more understanding, but they aided her in her recovery efforts (e.g., by encouraging her to be social):

> Erica: *much better, like we're [*family*] a lot stronger and they notice things, so they don't let me get away with anything which is so good*
>
> INT*: So, like what do you mean?*
>
> Erica*: Erm, so if I don't want to go out to do something they'll just ask why not, but then- so my mum used to kind of force me- not force me but she used to push me like why not, why do you always cancel on things. Whereas now she kind of understands more and tries to talk around it, she understands my thinking more. So, it can actually be kind of positive to get me to go out rather than just saying oh why aren't you going*

This category of 'maintaining supportive social groups' highlights that even though many participants expected to suffer negatively as a result of disclosing (as indicated in 'selective disclosure' about their disordered eating to their social groups), those that did disclose were surprised by the number of groups which remained supportive throughout their life with disordered eating. However, not all groups responded positively to the person recovering discussing and opening up about their disordered eating. For some, their ties with their social groups were negatively impacted by their group being unsupportive of their recovery. Participants' experiences with this are explored in the following category.

5.4.2.5 Withdrawing from unsupportive groups

For many people recovering from disordered eating, the journey towards their end goal can be long and complex. As such, it would be expected that social groups naturally change over the course of that journey. When moving through their recovery, participants would choose to

disclose about their disordered eating to some of their social groups, seeking out support and understanding. This was experienced in the majority of cases, however, some participants suffered negatively due to groups not understanding their disordered eating recovery. In these instances, participants felt it was necessary to withdraw or distance themselves from social groups they deemed detrimental or unsupportive of their recovery, or perhaps as even exacerbating the disordered eating. Participants seemed to be aware of the negative effects these unsupportive groups had on them. It was discussed that to maintain their recovery, making negative groups less important was a necessary step, which ultimately led to participants withdrawing from those groups. Throughout her interview Sarah highlighted that it was important for her to put her own mental health first. This led to her spending less time with groups that were not as compatible with her recovery for both her sake and her groups sake:

> Sarah: *I purposefully see little of them* [parents and family] *for my own mental health and for theirs as well, we just don't work well together. Erm, I guess it's kind of this has been a thing in the past but it's like one of the things is we have to, *sighs** [partner's] *family and friends don't maybe understand my mental health, or my mental health in general."*

Therefore, by allowing her family to play less of a role in her life, Sarah prevents both her and her family members from experiencing any negativity within their interactions, and although not ideal, she sees it as necessary for her recovery. For others, withdrawal from unsupportive groups was needed in their journey because members of these groups could not see the person without the disordered eating, and subsequently could not accept that the person was recovered, even though the disordered eating was no longer a concern. Once again, members of these social groups often highlight that this person was (and is) different to other group members, thus singling them out as atypical. For participants who want to go back to living a life in which they can be a representative member of their social groups, social groups not welcoming them as representative negatively impacts their relationship with that group. This was experienced by Lily, whose relationship with her immediate family was damaged through her disordered eating struggles, and subsequently her family members were not able to separate her from her former

disordered eating. She discussed that her family do not fully understand what she had to go through to get to her current recovery stage, and subsequently she has less contact with them. Moreover, their relationship has been negatively affected by her life with disordered eating, and even now she is recovered this has not been repaired.

> Lily: *he [*brother*] can't accept that I'm now okay and I'm now happy. Erm, and he's like, it's the same with my parents they're basically like how dare you now be happy, erm which is cool. So, yeah *laughs*, erm which is really hard so they see me as still this person [*with ED*]. Which of course they went through a lot and that sort of thing but *pauses*. I don't know, if my daughter or son had to go through something like this, then I would never berate them for now being okay* […] *I don't think they understand the sort of strength that it took and takes to get to this position. Erm, but that's them so, that's very difficult*.

Though this research focused on the role of social groups, participants also talked about how interpersonal relationships within their social groups can have an impact on their relationship with the overall group. This was the case for Lucy, who had to separate herself from her father; a decision which had a negative impact on her ties with her family as a whole. It was not a decision that was made lightly, but for her it is something she accepted as important for her recovery.

> [2]Lucy*: As for my family, so one of the reasons that I'm doing so well in recovery is that I liken to stopping talking to my dad, because he is not a good person in my head, so and also he's quite antagonistic* [...] *And I just know- when I stopped talking to him, that external pressure all went and I was able to get better at my own pace* [INT: *Yeah*] *So, yes it has affected my relationships with family but in a negative way but I stand by my decision* […] *I couldn't have recovered if I was still speaking to my dad, he's quite horrible* […]
>
> *INT: so do you still have contact with other members of the family just not him?*

[2] Information regarding family members and specific details to their relationships have been removed from this extract to avoid any identifying information being revealed.

Lucy: Not really, like my mum- me and my mum- so I should point out we all live in the same house, me, my [family]*. Erm, my* [family member] *doesn't understand why I'm not talking to my dad, she doesn't- cus my dad's sort of lied to her about another situation* [Lucy described the situation] *so she isn't talking to me* [Lucy explains why her family member is not talking to her] *My* [family member] *get on quite well, I'd say the best out of everyone in the house, erm it is disappointing I don't speak to my* [family member]*, but I'm not gonna speak to my dad, so I guess*

Participants who created distance between themselves and groups which they perceived to be detrimental for their recovery described this action as an important way for them to facilitate their own recovery: a way for them to achieve their goal of 'normality' within their recovery. Achieving such normality was perceived to be impossible while the participant was still a member of groups that would never perceive them as someone who is recovered from disordered eating. Not all participants felt the need to withdraw from groups they perceived in a negative light, participants did discuss their integration with new social groups. Becoming members of groups that were not associated with the person's disordered eating recovery allowed participants to be seen and accepted within the group for who they are as unique people, rather than being inevitably associated with the disordered eating. Participants' experiences of joining groups that are not associated with their disordered eating is discussed within the following category.

5.4.2.6 Acquiring new non-disordered eating associated groups

As participants moved through their recovery, they would often begin to join new social groups. The acquisition of new social groups is commonplace for everybody as they move though life and experience changes (e.g., getting a new job or starting university). However, for these participants, developing new group memberships as they moved through their recovery showed them that they were recovering and reinvesting in their social world: activities hampered by their disordered eating. Most participants developed new groups throughout their disordered eating

recovery, and many of these connections developed once the disordered eating was no longer a concern. Often these were groups with which participants did not strongly identify (e.g., groups which participants had only recently joined) and were thus relatively unimportant to their lives. A benefit of these newly acquired groups was that they were not necessarily aware of participants' disordered eating past. As participants were no longer concerned about their disordered eating, they often elected to leave their disordered eating as part of their past and not discuss it with newly acquired groups. Allowing participants to interact with these groups in a way that was unaffected by their eating disordered eating past. For instance, Erica discussed that while it was nice to be able to share with people that her disordered eating was in her past, she also liked not having others in her social world which knew about her disordered eating as it allowed her to be seen as 'a normal person':

> Erica: *I think it's nice when you can tell people about it being in the past and they're like wow you went through that, that's cool. Erm but then it's also nice to have people not know about it at all cus they're just thinking you're a normal person*

These 'normal' groups within their social world thus provided an additional source of support for people recovering as they sought their goal of 'normality'. Acquiring new social groups appeared to be one of the hallmarks of people moving forward with their disordered eating recovery. Gaining social groups that were associated with their recovery identity and/or completely unaware of their disordered eating past allowed participants to feel and be seen as a 'normal' member of these new social groups. As can be seen by Lily's comment about how newer friendship groups know her for her and not for her disordered eating past, this echoed the feelings and experiences of other participants.

> Lily: *Unless I let them in on anything else, like with the newer friends group, I'm just Lily, unless I let them in on the past*

Not making these new groups aware of disordered eating history could make participants' transition to an ingroup member of these new groups easier, as there is no risk of stigma from

their disordered eating past interfering with the process. It could be suggested that joining social groups that have no knowledge of the participant's disordered eating past provides access to resources that cannot be obtained from the social groups they joined before disordered eating recovery.

5.4.2.7 Acquiring new ED-recovery based groups

Developing new non-disordered eating recovery related groups was important for some participants in their recovery, however, others discussed developing new ED-recovery focused groups that they became part of through their ED treatment and their relevance within the recovery process. This group was only relevant for those who had engaged with ED based treatments (e.g., inpatient). Members within these groups held a shared understanding of disordered eating and ED-related experiences that meant this type of group (and the support it offered) was considered superior to other social groups. This could be because having an ED and wanting to recover were typical for this social group (while such sentiments were atypical for non-ED related social groups), making the person recovering highly representative of the group in question. As Emma discussed, the process of ED treatment led her to developing a friendship group where all members seek recovery together. The process of not recovering alone encouraged Emma to stick with her recovery due to the group which was positive for her recovery:

> Emma: *I found in day treatment you have- everything is done in group therapy so there's no one to one stuff erm so you kind of give each other advice and you talk about it with other people. And at first, it's quite intense because you're sharing everything with everyone but actually, I made some good friends there, beyond eating disorder stuff. Erm, and yeah because you're not doing it by yourself, like everyone's having to do it as well or choosing to do it as well. Yeah, I found that really helpful and it's one of the things that made me stick*

with it because I didn't want to kind of leave them and let them down and like we were all kind of in it together, so that was one of the most helpful things with it all.

The feeling of shared perspective and understanding harnessed within this group comprised of members striving for ED recovery was something that other social groups (e.g., family and friends) could not always provide. The other groups participants maintained throughout their life with disordered eating would often provide them with support, however, members could sometimes inadvertently say the wrong thing, because their understanding of disordered eating was not extensive: a problem not experienced in the ED-recovery related social group. Another positive aspect of this ED-recovery focused social group was that the person recovering could not only receive support from other group members, but also provide them with support. This again allowed them to feel even more representative of the group, as all members had a similar status within the group, thus being able to both give and receive support without embarrassment or expectation. This could not always be experienced within participants' other important social groups, as the person recovering was often not required to provide support to reciprocate the support they received, thus suggesting a status imbalance. The creation of these new ED-recovery related social groups allowed the person to belong to a group that could be completely relied on, with the reassurance that they would be supported and fully understood.

Jimmy*: I guess that also if they've [*treatment friends*] also experienced this then they can give you advice that you can then put into action to combat it, if you understand* […] *Whereas if you tell your parents or your best friend then they might accidently say the thing that you don't want to hear* […] *Or something that might not be helpful, erm not because they mean it but because they think they're giving you the best advice they don't fully understand what's happening*

The biggest resource gained through these new ED-recovery focused groups was a feeling of typicality: participants became a member of group where other group members also wanted to

recover or were in recovery, and engaged in recovery-related behaviour (e.g., struggling to converse whilst focusing on eating; not wanting attention drawn to what they are eating; and the desire to avoid dieting talk). This meant that participants knew they would be understood no matter what ED related struggles and/or victories they experienced. As these social groups developed through members' mutual understanding and shared experiences of EDs it was common for these ties to progress and grow alongside participants' recovery. As participants strived to achieve 'normality' again within their social worlds, this group became less focused around their shared ED and became a 'normal' friendship in which everyday activities and events would be discussed (albeit with the added security of knowing that the group would provide appropriate support/reactions should they have any recovery-related struggles or victories).

> Emma: *the friends that I've like, made there that are like long-term friends that I'm still in touch with and stuff erm, yeah that is different because they just get it and you don't need to explain it. It's like, we do normal things and we talk about normal things but then we kind of know the signs that other people don't know and just like having an unsaid understanding of it and the thoughts that you get it kind of, yeah. I appreciate those friendships a lot because they're normal but they're also- I don't feel like I'm hiding anything*

The belonging associated with these newly formed ED-recovery groups highlighted that feeling like a typical member was important to participants, and to their recovery. Feeling that they are being understood and not negatively judged because of ED-related stigma helped in moving forward and offered the 'normality' that many participants sought. This final category within this analysis discussed how participants who underwent treatment formed close and important bonds with others also seeking recovery from an ED. Having a group where they felt that their ED history would not be look upon negatively was important for participants, as it allowed them to feel effectively supported in their efforts to seek 'normality'. As these groups were often considered 'normal' friendship groups, it can be suggested that being typical and representative of this group allows individual members to feel 'normal' again, thus aiding in their search for 'normality'.

In conclusion, the role of social groups in disordered eating recovery was complex. Participants' recovery culminated in wanting 'normality' in their lives, not necessarily the 'normal' that they experienced pre-disordered eating development, but a new 'normal' in which they could be who they wanted to be and feel accepted by their social identity network. A major aspect of recovery was the extent to which participants chose to conceal or disclose their disordered eating to each of their social groups. Non-disclosure was common, and often the result of the person recovering's insecurities over their groups' responses and any repercussions of this admission. For those that did disclose their disordered eating history, the disclosure was very rarely received in the negative way participants initially expected. Those few who did suffer negative consequences of their disordered eating disclosure tended to distance themselves from the groups that responded negatively and were thus able to move forward with a social identity network that was supportive in accepting them for who they wish to be. Ultimately, social groups played an important role for all participants in their recovery and created an environment in which participants could move towards the 'normality' they wanted.

5.5 Study 1b: Discussion

Study 1b is the first study exploring people' desires and expectations for disordered eating recovery alongside the role of their social identity networks throughout their disordered eating recovery efforts. This analysis revealed a social identity-related process that was intertwined with people moving through disordered eating recovery. Participants ultimately wanted to achieve 'normality' within their lives. Being fully recovered was not necessarily what all participants wished for, with many stating that they would be happy as long as they were functioning in a 'normal' way (e.g., not having disordered eating thoughts dominate their thinking), and could be seen by others as a unique person (rather than as a person with a history of disordered eating). In addition to addressing thesis objective 1 and RQ5.1 (What does disordered eating recovery mean to those in recovery?), Study 1b supports previous research showing that people who are in disordered eating recovery consider recovery to be an ongoing process requiring constant work

(Federici & Kaplan, 2008). As highlighted within Chapter 1, there is a lack of consensus regarding what constitutes disordered eating recovery, with some researchers advocating for the remission and recovery distinctions within recovery (Khalsa et al., 2017), while others suggest that recovery is does not follow a linear pattern as indicated by remission/recovery categories (Dawson et al., 2014; Kenny et al., 2019). Study 1b supports the utilisation of recovery as a process that may not be as straightforward as suggested through remission and recovery categories.

Current findings also revealed that while reduction in disordered eating symptomology is important for recovery, also important is how symptom reduction allows people to re-engage with 'normal' everyday events (e.g., returning to work, being able to be social without anxiety, etc.). This finding supports research showing that symptom reduction enables people to become more functional within social interactions and relationships (Pettersen & Rosenvinge, 2002). Therefore, Study 1b findings further develop our understanding of what disordered eating recovery means to those who are going/have gone through it, by revealing that those recovering from disordered eating do not necessarily define their recovery as a complete absence of disordered eating symptomology, but by these symptoms reducing enough for them to lead a life of 'normality'. This highlights that recovery is more than just disordered eating symptomology, or lack thereof, but is also about the quality of the recovering person's life more generally, again addressing thesis objective 1. Therefore, from Study 1b it could be argued that a comprehensive definition of recovery, which does not currently exist, should be complex, highlighting that although complete recovery is the target (Bardone-Cone et al., 2018) it is not necessary. This definition of disordered eating recovery should also emphasise that recovery be centred around seeking and achieving a 'normality' within everyday life that may not necessarily focus on symptom eradication but on symptom reduction as is this still important.

One of the most important findings within Study 1b was that participants' social identity networks were intertwined with the development of their disordered eating recovery, and that the roles they held were multifaceted and could change throughout this process. This observation effectively addresses RQ.6.2 (Are social groups involved throughout disordered eating recovery?).

Little was known about how social identities are involved in people' recovery prior to this study; initial findings suggested that the support from ED-recovery related groups aids help-seeking intentions within disordered eating recovery (McNamara & Parsons, 2016) and that some social groups can be supportive for the person seeking recovery (Ison & Kent, 2010). However, aside from researchers acknowledging that social identities can be important for people recovering from disordered eating (Ison & Kent, 2010; McNamara & Parsons, 2016), there was no knowledge on the role played by social identities throughout the recovery. Consequently, the current findings build upon these previous claims by finding that social groups indeed had a crucial role for participants recovering from disordered eating. Through this study, a more in-depth understanding of the interaction between social groups and the disordered eating recovery has been developed by establishing that, for this sample, social groups impacted on the recovery, but in turn their recovery impacted on their social groups. This indicates the existence of a complex and dynamic process involving social groups within disordered eating recovery, which further research should explore in more depth.

Arguably, the current findings go beyond simply stating that social groups have an important role within disordered eating recovery; they start to hint at how they are important, and how they impact peoples' recovery. One aspect of this study that expands our understanding of the role played by social groups in disordered eating recovery concerns selective disclosure, which all participants engaged in with their social groups. People with EDs often engage in secrecy when the ED is developing, and they are maintaining it (Norris et al, 2006). However, much of the research on disclosure of disordered eating focused on the development and maintenance of EDs. Consequentially, EDs are often regarded as secretive and manipulative (Dias, 2003), but less is known about disclosure throughout recovery. In Study 1b participants engaged in selective disclosure throughout their life with disordered eating, from development to recovery. It can therefore be claimed that disordered eating disclosure remains an important issue, even once someone is fully recovered (although in recovery, this selective disclosure may no longer be due to secretive or manipulative motivations). The decisions determining disclosure of participants'

disordered eating to a social group was complex and context-dependent (e.g., living with a family group would often take the decision of disclosing out of the person's hands). Participants often wished to keep their life with disordered eating secret from some groups, and similarly to previous research, this was to protect themselves from the negative consequences associated with disordered eating disclosure (e.g., being judged and not being understood; Gavin et al, 2008). As was highlighted in the previous chapter, through the interviews it became evidently clear that a considerable number of participants considered their social groups to be 'uninvolved' or 'unaware' of their disordered eating recovery. Therefore, it can be claimed that throughout the development and maintenance of disordered eating participants often hid their disordered eating to maintain this indifference or unawareness (Norris et al., 2006), and when moving into the recovery phase of their life with disordered eating they began to employ non-disclosure as a way to secure the 'normality' that they sought.

Within highly stigmatised concealable disorders (e.g., HIV and mental illness), making the decision to disclose the disorder/illness is complex (Chaudoir & Fisher, 2010). Despite this, research suggests that being open and honest about an ED is important for moving forwards with recovery (Bowlby et al., 2015). This claim was echoed in this study, as participants would disclose their disordered eating to the groups they perceived as important and supportive. Similarly, groups participants chose not to disclose were often new groups, or groups deemed not understand their disordered eating recovery. These findings therefore support research indicating that the disclosure of a stigmatised disorder is a complicated issue (Chaudoir & Fisher, 2010). Participants' main intention when engaging in selective disclosure was to achieve and maintain 'normality' within their social identity network, allowing them to be accepted for who they wished to be, without disordered eating becoming a central element to how they were defined by others. This study therefore expands the current understanding of disclosure throughout the lives of people recovering from disordered eating, and furthers our knowledge regarding the use of disclosure, even once people have recovered.

Previous literature has indicated the importance of social support for people wanting to recover from an ED (Lineville et al., 2012). However, few studies have focused on the social group memberships that people in recovery from disordered eating possess, or the extent to which these group memberships (if they are supportive) can benefit the person recovering. Within the small literature exploring such issues, researchers suggest that others who are recovering and/or want to recover can encourage someone to seek help for their ED (McNamara & Parsons, 2016). As with previous literature (Ison & Kent, 2010), one of the most important aspects of a person's recovery was the support they received from their social groups. This current study takes these findings further by exploring the nature of the social identity networks possessed by people recovering from disordered eating. Receiving acknowledgement from social groups that the person has been struggling with their disordered eating but accepts them as who they now wish to be (e.g., without the disordered eating) aided participants in acknowledging this themselves. By being effectively supported in moving forward in their life and seeking the 'normality' they wanted, participants could advance their recovery.

Addiction recovery researchers have reported similar processes while testing SIMOR, Best and colleagues (2016) detail the social identity-related processes which people recovering from addiction go through. Within SIMOR (Best, Beckwith et al., 2016), groups that align with and support the person in their recovery efforts should be maintained and play an important role in allowing the person to succeed with their recovery. The present study echoes these conclusions within a disordered eating recovery context, as supportive groups were maintained (and often strengthened) through the recovery. Additionally, Study 1b highlighted the central role of groups which were 'uninvolved' with disordered eating recovery which were perceived as being supportive of the person seeking recovery but not directly supportive of recovery (as they were not aware/involved in the recovery). Arguably, both that which provided direct support for the recovery and support for the 'normality' sought for recovery would fall within the category 'recovery supportive' which is how SIMOR classifies these groups. Therefore, Study 1b provides vital support for the understanding that recovery-supportive groups, as suggested by SIMOR, can

be involved with the recovery, but equally it is not necessary. Study 1b also shows that SIMOR could be appropriate outside of addition recovery.

Most pre-disordered eating social groups held by participants were maintained throughout their disordered eating recovery, and still formed part of their current social identity networks. These groups were often the most important social groups in participants' lives, due to the support they provided. Thus, supporting previous social identity literature that the maintenance of social groups is beneficial for well-being and recovery outcomes (Haslam et al., 2008; Iyer et al., 2009). The current study's Constructivist Grounded Theory model highlights that maintaining supportive groups was important to participants' recovery. These observations share similarities with SIMIC (Iyer et al., 2009), in that the maintenance of social identities throughout a life transition protect against the adverse effects of life changes. These maintained groups provided people with a sense of identity continuity by creating a connection to their past (e.g., to a time before the disordered eating). It can be suggested that the maintenance of those supportive social groups was beneficial for people's recovery, as was having continued sources of support to rely on throughout their recovery. This is further evidence of how these current findings support and expand on the existing social identity literature by exploring social groups within the context of disordered eating recovery.

The SIMOR authors (Best, Beckwith et al., 2016) state that for recovery to occur, an ex-addict must separate themselves from former 'using' social groups. However, there was little, if any, discussions regarding groups that were only associated with disordered eating. As such, no direct comparisons can be made in respect of the 'using' group (e.g., a group associated with the problem behaviours and attitudes) from Study 1b findings. Despite this, within Study 1b, groups perceived as unable to move forward with the person recovering (because they do not see the person as someone in recovery/recovered from the disordered eating) were ultimately perceived as detrimental for recovery. These groups compounded the disordered eating and prevented the person making positive steps in their recovery, which aligns with the SIMOR rationale for leaving 'using' groups (Best, Beckwith et al., 2016). As such, these detrimental social groups had a less

important role in participants' lives (e.g., by the participant choosing to have less contact with these groups). By doing this, both the social group and the participant's well-being was protected, which preserved their disordered eating recovery. This was experienced by some participants, but it should be noted that the majority of groups were either supportive or uninvolved towards participants' disordered eating recovery. Overall, these current findings support previous literature on the importance of breaking away from social groups considered detrimental to people's mental health and well-being (Dingle, Stark, Cruwys, & Best, 2015). However, it could be argued that Study 1b provides a more complex understanding of groups which are detrimental to recovery maintenance, which goes beyond the 'using' group as discussed within SIMOR (Best, Beckwith et al., 2016).

Finally, the development of new social groups (a process observed in Study 1b) has previously been found to provide resources that help protect the person when going through a life change (Iyer et al., 2009). The role of the recovery orientated group (where all members work towards/are recovered from an ED) was important for maintaining recovery. The support and understanding of their shared disordered eating experiences made this social group important to participants. Members' personal experienced-based knowledge and understanding of what they have all experienced allowed participants to be confident that they were providing and receiving effective support. This supports and extends previous work showing that ED-recovery orientated groups can positively influence an individual's journey to recovery (McNamara & Parsons, 2016). Furthermore, the feeling of comradery experienced through this social group proved to be important, as the person recovering considered themselves to not be alone: experiencing recovery with others was deemed to be less frightening. Having others who can completely understand one's experiences, whilst being able to feel highly representative of the group in question, means that the group can have a positive effect on the person and their recovery efforts (Steinel et al., 2010). Indeed, identifying as a typical member of the group allowed for the person recovering to feel a sense of normality by not being singled out as different because of their disordered eating past, thus, reinforcing their membership of their group.

5.6. Integration and interpretation of Study 1a and Study 1b findings

Study 1 was conducted as a convergent mixed method study, where the quantitative (Study 1a) and qualitative (Study 1b) data were collected concurrently and utilising the same participants (but one participant did not complete the oSIM but did complete the interview). For this integration, the focus was to analyse both Study 1a and Study 1b individually to comprehensively understand what each element found in relation to the research questions for each analysis, presented and discussed in the previous chapter and this current chapter. However, it was also important to integrate the findings from both elements of Study 1 to effectively understand how Study 1 overall addressed the thesis objectives, specifically objectives 1 and 2. Additionally, it was of interest to determine where the results from Study 1a and Study 1b confirm and expand each other (Creswell & Clark, 2017). Within this section only the common findings across Study 1a and Study 1b will be presented, as the individual findings have already been presented and discussed in detail in the separate chapters. Therefore, it was appropriate to present the results for both Study 1a and Study 1b within a joint display, please refer to Table 5.2, where the common findings for each element are presented alongside a summary of integration.

Table 5. 2. The Role of Social Groups in Disordered Eating Recovery: Joint Data Display of Key Study 1a and Study 1b Findings Alongside Study 1 Integration.

Study 1a: oSIM key findings	Study 1b: CGT key findings	Study 1 Overall Interpretation
oSIMs reflect the stage of disordered eating recovery (e.g., oSIMs would have been smaller and less positive at acute stages of disordered eating). Ultimately, disordered eating recovery and becoming more socially integrated are connected.	Social worlds changed throughout the recovery process. Overall, disordered eating recovery is 'normality' and reintegrating into life.	Within Study 1a, participants talked about their social identity networks aligning with their disordered eating recovery stage: their networks would have contained a reduced number of groups and perceived to be less positive when they were dealing with their disordered eating. As participants were in recovery, their social identity networks were perceived positively. Overall, participants were happy with their oSIMs and only sought slight improvements to their networks (if any). As participants in Study 1b highlighted reintegrating into their social world was a key element of the recovery process, which mirrors their oSIMs as all participants belonged to social identity networks with 3-15 groups. Throughout Study 1b discussions of the recovery process participants discussed how their disordered eating had become their priority and overshadowed the other parts of their life (e.g., socialising). Also, participants reported that while they were dealing with their disordered eating and they may have engaged with their social world, but they were not necessarily themselves, they were not present within those interactions. However, when in

		recovery/or recovered, participants discussed that their current social world may not be the same as before their battles with their disordered eating, but they were more socially connected. Study 1 shows that not only do social groups change over the course of disordered eating recovery, but participants maintained social groups, they withdrew from social groups, and they developed new groups.
Social support is complex: with participants belonging to social groups defined as 'supportive' and 'unsupportive.'	Participants withdrew from 'unsupportive' social groups but still belonged to some they considered to be 'unsupportive; they maintained and developed new 'supportive' groups.	Through the discussions throughout Study 1b participants detailed how different groups supported their recovery, this included maintaining groups that members provided direct support and these groups (providing the participant still belonged to the group) were recorded as supportive on their oSIMs. Participants also developed new social groups throughout the recovery process that were considered 'supportive' on their oSIMs. There were also groups reported as being negative for recovery, either because they were unable to understand the person and their recovery or because they were incompatible. The groups that were discussed from a negative viewpoint were recorded as 'unsupportive' for recovery on the oSIMs for those participants. Study 1, therefore, highlights that social support is complex, as despite groups being viewed negatively/ unsupportive of recovery, participants still belonged

		to these groups, they just withdrew from them (e.g., having less contact with them) without relinquishing these groups completely.
Establishment of the 'uninvolved' social group.	Participants actively engaged in selective disclosure throughout their disordered eating recovery, not all groups were aware or involved with the recovery due to the participants not disclosing this information to certain social groups.	When creating their oSIMs in Study 1a, participants were asked whether their groups were supportive or not in their recovery. However, the process of oSIM creation established that not all groups fitted neatly into this supportive or unsupportive category. This is where the 'uninvolved' category arose: groups that were unaware because of non-disclosure. Throughout Study 1b, participants provided the contextual information behind this 'uninvolved' group. Actively choosing which groups to disclose their disordered eating was an important part of maintaining and recovering from disordered eating. Not disclosing disordered eating was considered positive as participants were not exposed to feelings of shame or the ED label. Having groups that do not know about the disordered eating, even once in recovery, enabled participants to be seen for them as the 'normal' person they desire to be acknowledged as. Therefore, Study 1 established that these groups were not directly involved with the recovery process, but they were supportive of the person recovering achieving their desire for 'normality' and still had an important role to play for the person seeking recovery.

Social groups had different levels of importance and involvement within the disordered eating recovery process.	The role of social groups was multifaceted and dependent on the group and their involvement in the recovery.	Within the oSIMs in Study 1a, the 110 groups (from the 15 oSIMs) varied in the importance they held for the participants (e.g., low, average, and high importance). Additionally, these groups had different levels of involvement in the recovery process. Through Study 1b the context behind the different levels of importance and involvement were developed. Participants highlighted that the nature of their groups could influence their involvement with recovery efforts. One of the core findings from Study 1b was the active engagement of choosing whether to disclose their disordered eating to social groups. Therefore, only groups aware of the disordered eating could be involved with the recovery efforts. However, not being involved with the recovery did not prevent groups being considered important to participants. Therefore, Study 1 highlights that even though some participants never told their social groups about their disordered eating, or that there were a mix of groups with and without knowledge of the disordered eating participants were still able to belong to important social groups. Suggesting that groups do not need to know about the disordered eating for the person to be part of a group.

The most common groups were Family (24) and general friends (30).	Family and friendship groups were commonly discussed throughout participants disordered eating experiences. Participants discussed both the positives and negatives associated with both groups.	Within Study 1a all participants reported one family group in their oSIM and the composition of the 24 family groups varied (e.g., some were supportive while others were not perceived as supportive of recovery). Throughout Study 1b, there was greater clarity developed regarding not only why these groups were currently perceived as their level of support, but also that support from family had changed over the recovery process (e.g., some family groups became more positive and supportive once the person was recovering). All but two participants reported a general friendship group (e.g., not associated with work or a specific hobby) within their social identity networks in Study 1a. However, during Study 1b, all participants discussed general friendship groups that had been relevant throughout their recovery process. Therefore, although not all participants reported belonging to a general friendship group within Study 1a they all had one general friendship group at one point or another, showing these groups were common for those in disordered eating recovery.

One of the main observations from the integration of Study 1a and Study 1b findings is that the qualitative element (Study 1b) provides the contextual information behind the oSIM (Study 1a) findings. While creating their oSIMs, participants discussed how their maps would have been different were they created in the acute stage of their disordered eating. This was expanded upon throughout the qualitative discussions regarding their social world throughout their disordered eating recovery process. Previous work has claimed that people with disordered eating have impaired social worlds in comparison to those without disordered eating (Leonida & Dos Santos, 2014; Tiller et al., 1997). Study 1 supports to these claims as the interviews around participants social worlds at different points of their life highlighted their social worlds were smaller and more negative at the worst stages of their disordered eating. Discussions throughout Study 1 also provided greater clarity on not just how the social worlds of participants would have been smaller but highlighted why this change occurred. Through the discussions in Study 1b, the process of maintaining groups and developing new groups was established, therefore highlighting that participants social worlds not only grew (because they were developing new groups through the process of recovery), but they were also maintaining some groups and even withdrawing from other groups. Arguably, finding that maintenance of supportive groups was a positive element of recovery for participants within Study 1 aligns with the maintenance element of SIMIC (Iyer et al., 2009) (as detailed in Section 2.5). As with SIMIC (Iyer et al., 2009), Study 1 found that most of the groups which were maintained throughout the recovery process were important and compatible with recovery, as they did not hinder the person's ability to achieve their desired 'normality' for their recovery.

Study 1a showed that participants were happy overall with their oSIMs, the discussions around social groups throughout the recovery process in Study 1b established the struggles and complicated nature of reintegrating with the social world leading to the current social identity networks that they were happy with. Study 1b highlighted that reintegrating into their social world was one component of disordered eating recovery, this did not necessarily mean returning to their social world prior to their disordered eating as groups were not necessarily at the same

stage as the person recovering. Not necessarily having the same social world as before the disordered eating matches up with the oSIMs that were created as these held between 3-15 groups. This shows multiple social group memberships were held during recovery, which is not how participants described their social worlds while living with their disordered eating. Arguably, without both elements of Study 1, there would not be a comprehensive understanding of the formation of participants' current social identity networks.

Not necessarily wanting to return to a social world before disordered eating could be due to participants surrounding themselves with a network of groups compatible with their recovery focused life and allow them the 'normality' sought. This would align these findings with one component of SIMOR (as detailed in Section 2.5.1), as researchers have suggested that the social worlds of people seeking addiction recovery must be compatible with recovery (Bathish et al., 2017), which may not fit with their previous social world. Finding social identity networks would have been different at different stages of the disordered eating suggests that disordered eating recovery and social groups are connected, which addresses thesis objective 2 (what is the role of social identities throughout disordered eating recovery?). It can be argued that finding social groups and recovery are interconnected through Study 1 supports the Social Cure concept that the interaction between losing groups, maintaining them, and gaining new groups is important in the outcome of a major life change (Haslam et al., 2018).

Further to developing an understanding around the formulations of participants current social identity networks, the nuance behind maintaining, withdrawing, and developing groups was established within Study 1. One of the core distinctions developed was an understanding of how different groups supported or did not support recovery, again addressing the role that social groups have within disordered eating (thesis objective 2). Throughout Study 1b it was common for participants to maintain groups that were supportive of their recovery, still a part of participants social worlds, and thus included on their oSIMs. Some participants discussed that through the process of maintaining social groups alongside recovery efforts these groups became more aware and developed a better understanding of the person and their recovery. This in turn aided

recovery maintenance as these groups provided a sense of accountability and could support the person without the person needing to repeat their struggles as they already had awareness of the person's disordered eating struggles. In addition to maintaining supportive groups throughout their recovery, participants developed new social groups again perceived as being supportive of recovery. One of these new supportive groups was ED-recovery based and although not held by everyone, those who maintained this type of group and considered them supportive of recovery was because all members share the same goal – disordered eating recovery. Again, these groups provided support for recovery without the person having to repeat their struggles. The nuance behind these supportive groups that were maintained, and those newly developed supportive groups were established within Study 1b, and through oSIM (Study 1a) all of these groups could be depicted together despite the different paths that led them to be part of participants social worlds.

Within Study 1a participants oSIMs showed that they did not only belong to supportive social groups, but their social identity networks also contained groups deemed not supportive of recovery. Throughout Study 1b participants elaborated on why they maintained not only supportive groups but also unsupportive groups. In Study 1a there were considerably less groups considered unsupportive (6 groups) of recovery compared to supportive (59 groups), it was apparent through Study 1b that these had an important place within the recovery process. Through discussions around these groups, participants emphasised that not only did the disordered eating impact their groups, but their recovery had not improved the ties and relations with some groups that were negatively impacted by their disordered eating. From the person seeking recovery's perspective, these groups were unable to understand their recovery or had a negative impact on their mental health which made them incompatible with recovery. Despite the negatives associated with these 'unsupportive' groups throughout Study 1b, participants did still belong to some of these 'unsupportive' groups as highlighted in Study 1a as they made up their current social identity networks. Therefore, Study 1 highlights that groups can be perceived as 'unsupportive' of disordered eating recovery and have negative implications for recovery, but

participants had not relinquished these groups but withdrawn from them (e.g., having less contact with them). This finding again provides further evidence in addressing the roles of social groups throughout disordered eating recovery (thesis objective 2). It can be argued that without using both Study 1a and Study 1b, the understanding as to why participants still belong to groups they deemed 'unsupportive' of their recovery would not have been comprehensively unpacked.

Additionally, Study 1a provided an awareness of the perceived group support for disordered eating recovery that showed support was not as straight forward as being either supportive or unsupportive. Participants created their own middle ground that accounted for groups neither involved nor aware of their disordered eating history and therefore could not be classed as supportive or unsupportive of recovery. Despite this uninvolved group being established through the oSIM, only through the exploration of social groups throughout disordered eating recovery within Study 1b did the role of selective disclosure become apparent. All participants actively engaged in choosing whether they disclosed about their disordered eating, who they disclosed their disordered eating to, when they disclosed this (if at all), and what exactly they did disclose (if they chose to). As established throughout Study 1b, the nature of disclosure was complicated and there were a variety of factors behind the decision to disclose or not (e.g., not being exposed to feelings of shame or the ED label). Belonging to groups 'uninvolved' in the recovery process allowed participants to be seen for them: the 'normal' person they desired to be within their recovery.

Belonging to groups not involved or aware of disordered eating history was considered positive for recovery as they may not be directly supportive of recovery but are supportive of the person more generally. The nature of this support enables participants to achieve the 'normality' they sought for their life and therefore have an important place within the recovery process. Thus, suggesting that it is not always necessary to disclose disordered eating to others to be successful in recovery, which contradicts previous claims that being open about disordered eating is crucial for recovery (Bowlby et al., 2015). This finding from Study 1 addresses both what disordered eating recovery means (thesis objective 1) as it was defined as 'normality' and

provides further understanding of the different roles social groups have throughout recovery (thesis objective 2). Without Study 1a, the 'uninvolved' category for this groups which are unaware and/or uninvolved would not have been established and without the in-depth exploration of social groups throughout the recovery process in Study 1b the nuance surrounding this 'uninvolved' group would not have been developed. Therefore, it could be suggested that through the combination of Study 1a and Study 1b an understanding of disclosure was established and how these 'uninvolved' groups are positioned within the context of support.

These central findings regarding the supportive, 'uninvolved', and unsupportive groups highlight that it was important for participants to move towards a social identity network which aligns with their recovery. This understanding of recovery in relation to social groups is similar to that suggested within SIMOR, as both Study 1 and SIMOR highlight that people seeking recovery should move towards a recovery-supportive network, that involves creating distance between unsupportive groups and increasing identity with groups that are recovery supportive (Best, Beckwith et al., 2016). SIMOR and Social Cure researchers exploring its core elements recommend that people seeking addiction recovery must leave groups thar are not only negative for their recovery but also 'using groups' (Beckwith et al., 2019; Best et al., 2014; Dingle et al., 2015; Dingle et al., 2019). Throughout Study 1 there was little, if any, discussions relating to having to leave any groups which were only associated with their disordered eating for the sake of their recovery. As this vital element of SIMOR was missing from Study 1 it could be suggested that SIMOR does not fully explain the processes of disordered eating recovery in the same way as it does addiction recovery despite the similarities detailed above.

Another common thread identified through merging Study 1a and Study 1b findings was that participants social groups had differing levels of importance. This was more clearly evident in Study 1a but through the discussions in Study 1b the differences between a highly important group and an averagely important group could be explored. Group importance as with social support was complex and investigating the groups over the recovery process within Study 1b expanded on the categories established in Study 1a. An area of interest when looking at group

importance throughout Study 1 was group involvement within the recovery process, it was clear that social groups all had differing levels of involvement, again addressing the roles that social groups had throughout disordered eating recovery (thesis objective 2). It is important to note that across Study 1 groups may not have been aware or involved with the recovery process, but it did not stop these groups from being highly important to the person recovering. Ultimately, Study 1 highlights it is not necessary for all social groups within a social identity network to be aware or involved in recovery and it does not prevent the person in recovery from belonging to important groups.

It was clearly highlighted throughout Study 1a that family and general friendship groups were the most common groups participants currently belonged to as they accounted for 54 of the 110 groups utilised within the 15 oSIMs. Further investigation into the makeup of these two types of groups revealed that there was some variation. Most notably, although most of the 24 family groups were perceived as supportive (15), not all family groups were aware of the disordered eating history of participants (7), and some were even perceived as unsupportive (2). Suggesting that family has a complicated role within disordered eating recovery (addressing thesis objective 2), again this was emphasised through the in-depth exploration of the recovery process in Study 1b. As family were discussed at length throughout Study 1 it can be suggested that family play an important part in the disordered eating recovery process and supports research focusing on the role of family (Leonidas & dos Santos, 2014; Marcos & Cantero, 2009; Topor et al., 2006).

Often throughout Study 1b the dynamics between the person with disordered eating/seeking recovery and their family appeared to change, many of these relationships appeared to be strained due to the disordered eating, but through the recovery process many family groups were viewed positively and as supportive. Study 1 is therefore in line with previous conclusions that family can be an important source of social support within the disordered eating recovery process (Leonidas & dos Santos, 2017). As family is considered a beneficial resource for people seeking disordered eating recovery (Leonidas & dos Santos, 2017), it follows that family is regularly included throughout the recovery process. However, throughout Study 1 some family groups

were uninvolved or perceived as unsupportive of the disordered eating recovery. It could be argued that family is not necessarily a group that should automatically play a major role within recovery efforts. As participants highlighted throughout Study 1, having groups that were not aware and/or involved with their recovery was seen as a positive that could aid achieving 'normality' in recovery. Therefore, automatically including the families of people seeking disordered eating recovery may not be positive for everyone and potentially other sources of support (e.g., friends and work colleagues) may provide more effective support for recovery efforts (Leonidas & dos Santos, 2014).

Study 1a found that friendship groups were the most commonly included social group within participants oSIMs (30 from the 110 groups in total), suggesting that friends are an important component of the lives of those in disordered eating recovery. Despite not all participants currently belonging to a general friendship group (i.e., not a group created through a shared disordered eating history or through work) they did all discuss at least one friendship group at sometime within their recovery during Study 1b. It was evident through these discussions that, as with family, the dynamic of some friendship groups changed over the course of the disordered eating recovery. A common thread was that participants felt less present around their friends during the acute phases of their disordered eating and while this had led to a change to most friendships at that time, the change was not always negative. Some participants discussed that these friendship groups became and still were a crucial source of support for their recovery, as they developed a better understanding of the person and their disordered eating. As such, it could be suggested that utilising friendship groups within disordered eating treatment efforts could provide an additional source of support for some people seeking recovery (Ison & Kent, 2010).

Overall, it can be claimed that through the integration of both Study 1a and Study 1b findings, Study 1 provides a comprehensive and novel understanding of the role of social groups throughout the recovery process (addressing thesis objective 2). More specifically, Study 1 highlights that the social worlds of those in disordered eating recovery had gone through various

changes throughout the recovery process, culminating in their current social identity networks being more positive than they had been previously. Study 1 also provides understanding regarding the nuances surrounding social support, group importance, and group involvement within the disordered eating recovery process. Ultimately, Study 1 shows that social groups are intertwined with the process of recovering from disordered eating and what this recovery means to those who are recovering: 'normality' (addressing thesis objective 1).

5.7 Study 1: Conclusion

One of the main aims of Study 1 was to explore what disordered eating recovery meant to those who were currently going through that process (thesis objective 1). Throughout Study 1, especially in Study 1b, participants highlighted that for them recovery was achieving a 'normality' within their everyday life. This 'normality' was achieved by a reduction, but not complete absence, of disordered eating thoughts and behaviours which in turn enabled the person recovering to re-engage with their social world. Showing that while a reduction in disordered eating symptoms was a core part of recovery, their social world was also an important factor in achieving recovery and sustaining recovery, addressing thesis objective 1. Study 1 also addressed thesis objective 2, by highlighting that social groups have an important role throughout disordered eating recovery. Within the Study 1 investigations it was evident that social groups have an important role within recovery, although it was a complex relationship.

Arguably the most prevalent element of social groups across Study 1 was social support throughout the recovery process. More specifically, group support for disordered eating was more complicated than simply a group either being supportive or unsupportive, Study 1 also established the 'uninvolved' level of support from groups. The 'uninvolved' group was utilised to describe groups that were either not aware or knew about the disordered eating but were in no way involved with the recovery process. Despite being 'uninvolved' participants saw these groups as important for their recovery. By having no awareness/involvement they aided participants in

achieving the 'normality' they sought for their recovery. Therefore, having groups deemed supportive was positive for disordered eating recovery, having social groups which were unsupportive and/or negative for recovery efforts and the benefits of the 'uninvolved' groups, there are clear positives to not disclosing disordered eating to others. Study 1 shows there is a complexity to the role of disclosure for those in disordered recovery, highlighting both the positives and negatives of disclosure and non-disclosure. As little is known regarding disclosure within disordered eating recovery (Williams et al., 2018) these current findings provide the foundation for further exploration into the complex nature of disclosure throughout disordered eating recovery.

While Study 1 shows that social identity networks of those in disordered eating recovery are complicated and all groups have a role within the recovery (either direct or indirect involvement), the findings highlighted two main groups within this sample: family and friends. These were often the most discussed groups: some participants deemed these groups to be highly supportive during their recovery, while others considered them to be unsupportive, and some groups were not aware or involved with the recovery. Suggesting that both family and friends can be important to those in disordered eating recovery, no matter how they are perceived (e.g., positive, negative, or uninvolved). More work is needed to build upon these findings and develop a well-rounded understanding of the role played by social groups during the disordered eating recovery process: an issue addressed by Study 2.

To conclude, Study 1 not only addresses the research questions designated to each of the two elements (for a more detailed exploration of these research questions refer to Section 4.7 and Section 5.5) but also addresses thesis objectives 1 and 2. However, participants suggested that their social worlds had changed over the course of their disordered eating, due to the retrospective nature of Study 1 no firm conclusions could be drawn regarding the dynamics between social identity changes, disordered eating recovery symptomology, and well-being over time (thesis objective 3). However, this will be addressed by Study 2.

6. Study 2a: Cross-Sectional Exploration of Social Group Identifications and Mental Health/Well-Being for Those Seeking Disordered Eating Recovery

6.1. Chapter overview

Study 1 conclusions were that for people in disordered eating recovery, recovering meant achieving 'normality' in their everyday lives. This 'normality' was not only achieved by a reduction in disordered eating thoughts and behaviours, but their ability to re-engage with their social world. More specifically, it appeared that social groups had a central role within the disordered eating recovery process, but the role of social groups was complex. Social support was a considerably important attribute within the recovery process. However, it was more complex than simply being supportive or unsupportive: Study 1 concluded an 'uninvolved' group. Study 1 established that while having supportive groups is beneficial for recovery, having groups unaware and/or uninvolved with recovery is also beneficial for recovery. Study 1 findings thus highlight the nature of support and disclosure, which is complex. Disclosing to groups can provide direct support with recovery efforts, whereas concealing disordered eating from groups can provide access to indirect support as these groups aid achieving 'normality'.

Study 1 findings showed an important relationship between social groups, social support, and disclosure of disordered eating, but it also established that it was a complex relationship needing further exploration. Study 2 is a two-time point longitudinal survey study over six months: Time 1 cross-sectional data will be explored first in this chapter (Study 2a), before moving onto exploring the longitudinal data in the next chapter (Study 2b). This current empirical investigation aimed to quantitatively test the relationships observed in Study 1, specifically focusing on the relationship between group identifications, social support, and disclosure of disordered eating to social groups. Additionally, as Social Cure research shows that social identities change over time and these can impact health and well-being (Iyer et al., 2009), this chapter will address the

relationship between group identifications and mental health/well-being for people seeking disordered eating recovery. Within this chapter the rationale behind Study 2 will be discussed, followed by the aims and hypotheses pertaining to Study 2a (the cross-sectional analysis). The cross-sectional findings will be presented within five sections: descriptive statistics and correlations (Section 6.5.2); hierarchical regressions (Section 6.5.3); moderation analyses (Section 6.5.4); mediation analyses (Section 6.5.5); and moderated mediation analyses (Section 6.5.6). Finally, the conclusions drawn from Time 1 data will be discussed, before moving onto explore Time 1 and Time 2 data longitudinally in Study 2b.

6.2. Study 2: Rationale

There were five main issues from Study 1 the researcher aimed to address in Study 2: the importance of social identities; the changing role of group identifications over the course of disordered eating recovery; the role of disclosure of disordered eating; the role of social support; and the need for a sample that spanned the disordered eating continuum. Both the cross-sectional and longitudinal data analyses will be presented in this thesis and the rationale behind this decision is discussed below.

1. The importance of group identifications

First, one of the most prominent findings from Study 1 was that social groups were an important part of participants' disordered eating recovery, but their roles were complex and varied. Not only were social groups important to disordered eating recovery, but it was reported in Study 1a that participants' oSIM creation made them realise they had larger social worlds than they initially thought. Suggesting that people in disordered eating recovery are more socially connected than previous research suggests (Striegel-Moore et al., 2003). Study 1 was the first study to explicitly explore social identity networks in disordered eating recovery, as such, further work is needed to investigate the importance of multiple social groups and participants' identification with those groups, to explore the Social Cure concepts within disordered eating

recovery in greater depth. As discussed within Chapter 2, multiple group memberships are beneficial for mental health and well-being (Iyer et al., 2009; Steffens et al., 2016). However, it has been argued that it is more than mere group membership: one must identify with the groups in question to experience the mental health/well-being benefits (Miller et al., 2017; Sani et al., 2015a; Sani et al., 2015b). Previous research has highlighted positive relationship between multiple group identifications, mental health (e.g., reduced depression; Sani et al., 2015b) and well-being (e.g., higher satisfaction with life; Wakefield et al., 2018). Therefore, it was important for Study 2 to explore multiple group identifications.

Study 1 participants discussed that they would have had smaller social identity networks when they were battling with their disordered eating. As the researcher aimed to recruit people seeking recovery from disordered eating concerns, there was the potential for participants not to be engaging in their recovery and a concern was that potential participants could have small social worlds and asking them about all the groups found in Study 1 may have caused distress. As such, the researcher deemed it appropriate to explore membership to a few social groups. Based on the Study 1 findings the researcher selected family, friends, a group used for support with disordered eating, and identification with others in recovery, to explore multiple group identification in Study 2. Social Cure researchers have claimed that there could be a ceiling effect when exploring number of social groups which is reached around 3 or 4 groups (Wakefield et al., 2017). Therefore, exploring identification with a select few social groups is suitable for Study 2.

Family and friends were chosen as two of the groups to help explore multiple group identifications in Study 2, due to the prominence of these groups in the Study 1 data. Due to the complexities surrounding support and disclosure in Study 1, the researcher thought it would be beneficial for Study 2 to include at least one group that is perceived as supportive of disordered eating recovery. This technique of allowing participants to select a personally meaningful group membership and then asking them to rate their identification with that group has been utilised in previous studies exploring social identities and mental health/well-being (Sani et al., 2015a; 2015b). The final social group in the 'number of group identifications' within this study was

recovery identity, more specifically, recovery identification. Not all Study 1 participants directly discussed their identification with other people in recovery, but some belonged to recovery-based groups which were supportive of recovery. Disordered eating research has highlighted that shared experiences within recovery groups can foster a group identity (e.g., online support groups; Riley et al., 2009). Previous research has explored identification with ED support groups (McNamara & Parson, 2016), but identification with others in disordered eating more generally has not been investigated. As such recovery identification was considered important within this analysis. Unlike the other social group in Study 2, recovery identification is considered an imagined community, as members of this group will never necessarily meet or hear each other, but still have a sense of belonging and commonality with each other, which is necessary in order to develop a sense of identification (Anderson, 2006). While an alternative possibility could be to ask participants to rate their level of identification with their peer support group (i.e., a group in which members meet to focus on their recovery), not all participants will belong to such a group. However, all participants seeking disordered eating recovery could identify with fellow people in recovery, thus making the recovery identity a more suitable and inclusive option for use in Study 2.

The researcher's primary interest in Study 2 was the 'number of group identifications', but from the four groups discussed above. The rationale behind this decision was that many Social Cure researchers are interested in multiple group memberships and Study 2 would follow a similar line of inquiry. Also, thesis objective 3 is concerned with the change in group identifications over time, a simple yet effective way to address this is to explore the change in 'number of group identifications' between T1 and T2 in Study 2. As these groups were central to Study 1 and previous research, it was appropriate to use these four groups as the 'number of group identifications' in Study 2. Therefore, Study 2 was designed to explore the identification with multiple groups, specifically family, friends, a group used for support, and others in disordered eating recovery. Through this the researcher aims to address the role of 'number of group identifications' for people seeking disordered eating recovery (thesis objective 2) and

establish the relationship between 'number of group identifications' and mental health/well-being (thesis objective 3).

2. The changing role of social identities over the course of disordered eating recovery

The second main conclusion drawn from Study 1 was that changes in participants' social identity networks (e.g., maintaining social group memberships and gaining new ones) was a major part of disordered eating recovery. So, it was necessary to explore this further in Study 2. Social identity changes are commonplace throughout Social Cure research, as discussed in Chapter 2. Social identity changes occur when a life change or transition is experienced (Iyer et al., 2009) and are perceived as a necessary process during successful addiction recovery (Best, Beckwith et al., 2016; Cruwys et al., 2020; Dingle et al., 2019). Study 1 provided tentative evidence to support the idea that social identity change processes outlined in Social Cure models (SIMIC: Iyer et al., 2009, SIMOR: Best, Beckwith et al., 2016) also occur during disordered eating recovery. However, more research is needed, and no published research has explored social identity changes from the perspective of people going through disordered eating recovery. As such, Study 2 will remedy these shortcomings by investigating social identity changes throughout disordered eating recovery (thesis objective 3). Moreover, changes to social identities were thought to occur via the interaction between social support and disclosure of disordered eating; as such models exploring the moderating and mediating effect of these key elements of Study 1 on the relationship between group identifications and mental health/well-being.

3. The role of disclosure of disordered eating

Participants often talked about disclosing and/or concealing their disordered eating behaviours/thoughts from members of their social groups throughout Study 1. However, the relationship between disclosure/concealment and recovery was complex. Knowledge regarding concealment of disordered eating and how this concealment impacts disordered eating recovery is sparse (Williams et al., 2018), but being open and honest about disordered eating/an ED is

thought to be important for recovery (Bowlby et al., 2015). From Study 1, it could be argued that concealment of disordered eating is more complicated than simply disclosing/not disclosing to a specific group: the decision behind choosing to disclose one's disordered eating depends on the type of group to which one is disclosing, that group's involvement with the recovery process, and where the person is in their recovery journey. Subsequently, more work is needed to unpack the complexities surrounding the decision to disclose or to conceal one's disordered eating to social groups, to effectively understand how disclosure and concealment functions in relation to the social identity changes highlighted within Study 1. Therefore, Study 2 will investigate how concealment of disordered eating moderates the relationships between group identifications and mental health/well-being, addressing thesis objective 3. This investigation will also address thesis objective 2, as exploring the concealment of disordered eating from social groups will develop further knowledge around the nuances of group identifications within disordered eating recovery.

4. The role of social support

The important role played by group-based social support in facilitating recovery was another key Study 1 finding. Social support complex, as groups were considered supportive without holding any knowledge of the person's disordered eating, as they were perceived as being generally supportive of the person seeking recovery, rather than directly supporting the person's disordered eating recovery efforts. Social support is an important component of disordered eating recovery (Akey et al., 2013; Brown & Geller, 2007; Ison & Kent, 2010; Lindstedt et al., 2018; Linville et al., 2012; Wade et al.,2012). Social support is also a major element of the Social Cure (see Chapter 2). Social group memberships can provide social support that protects and enhance members' mental health and well-being, especially during times of stress or crisis (Haslam et al., 2005; Haslam et al., 2012). Therefore, as social support is an important resource provided to us by the groups to which we belong to, and a small body of research (including Study 1) has shown that such support is especially important during disordered eating recovery. Study 2 will expand on our knowledge regarding the role of social support in the context of disordered eating recovery. Study 2 will also investigate how this relationship between social group memberships

and social support impacts the mental health and well-being of people seeking disordered eating recovery, thereby addressing thesis objectives 2 and 3, and to advance understanding regarding how the social support obtained from social groups features within the general life of people seeking disordered eating recovery.

5. The need for a sample that spanned the disordered eating continuum

Finally, an important Study 1 issue to address in Study 2 was the nature of the sample. Study 1's sample included a mixture of participants who did and did not possess official ED diagnoses, however, there were far more participants with an official diagnosis (*n* = 15) than without (*n* = 1). It could thus be claimed that the conclusions drawn from Study 1 are limited due to the narrow range of disordered eating experiences it explored. As discussed throughout Chapter 1, the disordered eating spectrum covers everything from sub-clinical EDs to clinical EDs and has previously been utilised within Social Cure research (Cruwys et al., 2016). The underlying commonality across the disordered eating spectrum is the over-evaluation of body weight and shape (Fairburn et al., 2003), that leads to disordered eating behaviours (e.g., body dissatisfaction, weight concerns, inappropriate compensatory behaviours; Bunnell et al., 1990). With this in mind, the researcher sought a sample of participants who spanned a wider range of the disordered eating continuum in Study 2. Specifically, people were invited to participate if they felt that they engaged in 'disordered eating' (which may or may not mean that they possess an ED diagnosis). To ascertain the appropriateness of the concept of 'disordered eating' for Study 2, the survey was piloted with the Study 1 participants who spanned the widest range of the disordered eating spectrum (one who identified as recovered, two who were in recovery from a diagnosed ED, and the one participant who had never received an ED diagnosis). None of the four participants responded negatively to the term 'disordered eating', and all felt that it applied to them. The survey was released to the public, and anybody seeking recovery from disordered eating concerns. With the aim to recruit participants across the disordered eating spectrum who were seeking recovery and explore the relationship between their group identifications, social support, disordered eating concealment, and mental health/well-being.

Exploration of both the cross-sectional and longitudinal data from Study 2

In addition to the above five main issues from Study 1, Study 2 will utilise a longitudinal panel design and both the cross-sectional and longitudinal data analyses will be presented within this thesis (additional support for this can be found in Section 4.3.4). Exploring the relationships between variables is one of the most utilised strategies in social identity studies that involve examining variables at a single time point (cross-sectional research; Chang, Jetten, Cruwys & Haslam, 2016; Haslam et al., 2018; Howitt & Cramer, 2020; van Veelen, Hansen & Otten, 2012). However, temporal relationships between variables cannot be investigated in cross-section research, so longitudinal research is necessary to determine whether the relationships established at one time point remain over time (Cacioppo et al., 2006; Howitt & Cramer, 2020). Data from multiple waves of a study can be analysed to answer any questions regarding the validity of the relationships that were observed in a single wave of the study (Louis, Robins, Dockery, Spiro, & Ware, 1986). Moreover, the relationship between group memberships/identifications and various health and well-being outcomes has previously been explored both cross-sectionally (Bobowik, Martonovic, Basabe, Barsties, & Wachter, 2017; Cooper, Smith & Russell, 2017; Cruwys, South, Greenaway & Haslam, 2015; Greenaway et al., 2015; Heath, Rabinovich & Barreto, 2017; Muldoon et al., 2017) and longitudinally (Cruwys et al., 2014; Miller et al., 2017; Steffens et al., 2016; Wakefield et al., 2018; Wakefield et al., 2020). Thus, exploration of both the cross-sectional and longitudinal data sets from Study 2 is essential to provide a well-rounded exploration of the relationships of interest within this thesis.

Although there are clear advantages of longitudinal data, the decision has been taken to present both cross-sectional and longitudinal data from Study 2. This is due to three reasons. Firstly, the exploratory nature of the study means it is essential to comprehensively explore cross-sectional and longitudinal relationships and compare similarities/differences between these. Exploration of an area of interest (e.g., the role of social identities for people in/seeking disordered eating recovery) is the crucial beginning step for researchers in understanding their area of interest (Baumeister, 2016). Only through a series of exploratory research studies are

researchers able to move forward into the confirmatory studies (Stebbins, 2011). As little is known about social identities and disordered eating recovery, it is important to identify the potential mediators, moderators, and relationships between social identities and mental health/well-being, which is a core element of exploratory work (Baumeister, 2016). To be truly exploratory in nature, as the researcher aims to be, it is essential then to present both cross-sectional and longitudinal findings to identify any and all potentially important elements in the relationship between group identifications and mental health/well-being for people in/seeking disordered eating recovery, that future research can then examine further. Therefore, the exploration of both the cross-sectional and longitudinal components of Study 2 will provide a novel and rigorous exploration of the relationship between group identifications and health/well-being for people in recovery from disordered eating.

Secondly, the nature of the population and the nature of longitudinal research meant that attrition was predicted to be (and ended up being) relatively high (an overall attrition rate from T1 to T2 of 46.49%, see Section 7.3.1 for more details). This means that the cross-sectional data has more power than the longitudinal data, so there could be a greater risk of Type 2 errors in the longitudinal analyses. G*Power analyses (Faul, Erdfelder, Buchner, & Lang, 2009) were conducted for Study 2a (the cross-sectional study) and Study 2b (the longitudinal study). Both studies required *N* = 92 in order to achieve a medium effect size, and 185 participants were included in Study 2a, while *N*= 99 for Study 2b (see Section 6.4.1 for full power analysis information). Therefore, both the cross-sectional and longitudinal samples have the appropriate power to test the hypotheses across Study 2. However, the attrition analysis showed that participants were more likely to respond at T2 if they had an ED diagnosis (see Table 7.2). Therefore, Study 2b could be impacted by attrition bias due to the change in the clinical characteristics of participants in the sample (Ahern, & Le Brocque, 2005; Nunan, Aronson, & Bankhead, 2018) and this should thus be taken into consideration when exploring these findings. It could be argued that it is important to explore both the cross-sectional and longitudinal analyses in Study 2 to reduce the likelihood of either Type 1 or Type 2 error (see Section 6.4.4 for more on type 1 and type 2 error).

Finally, in previous Social Cure research, the relationship between group memberships/identifications and various health and well-being outcomes has been explored both cross-sectionally (Bobowik, Martonovic, Basabe, Barsties, & Wachter, 2017; Cooper, Smith & Russell, 2017; Cruwys, South, Greenaway & Haslam, 2015; Greenaway et al., 2015; Heath, Rabinovich & Barreto, 2017; Muldoon et al., 2017) and longitudinally (Cruwys et al., 2014; Miller et al., 2017; Steffens et al., 2016; Wakefield et al., 2018; Wakefield et al., 2020). It has been claimed that analysing longitudinal data from the same study as cross-sectional data has already been analysed can help to answer any questions regarding the validity of the initial cross-sectional relationships (Louis, Robins, Dockery, Spiro, & Ware, 1986). Therefore, it can be argued that exploring both the cross-sectional and longitudinal components of Study 2 is appropriate and in line with previous Social Cure work. Thus, exploration of both the cross-sectional and longitudinal data sets from Study 2 is essential to provide a well-rounded exploration of the relationships of interest within this thesis.

6.3. Study 2a: Aims and hypotheses

The main aim of this cross-sectional analysis of Study 2's Time 1 data was to further explore the role played by group identifications in disordered eating recovery (thesis objective 2) by investigating the relationship between group identifications and mental health/well-being for people seeking disordered eating recovery (thesis objective 3). More specifically, Study 2a involved investigating the number of group identifications held by people seeking disordered eating recovery (out of a possible four: family, friends, a group used for support with disordered eating, and recovery identity), and then exploring the relationship between participants' number of group identifications and their mental health/well-being. Consistent with the Social Cure, it was expected that more group identifications would predict better mental health and well-being outcomes:

H6.1. Number of group identifications will have a positive relationship with well-being, but a negative relationship with mental health. More specifically, number of group identifications will have a positive relationship with satisfaction with life, but have a negative relationship with disordered eating symptoms, anxiety symptoms, and depression symptoms.

Moderation hypotheses

This positive relationship between number of group identifications and mental health/well-being was not expected to occur equally for all participants. As such, it was predicted there would be moderators of the relationship between number of group identifications and mental health/ well-being.

Concealment moderating hypothesis

The first moderator was concealment of disordered eating. There is a lack of knowledge regarding disclosure and concealment of disordered eating for people seeking disordered eating recovery (Williams et al., 2018). However, Study 1 highlighted that, concealment and disclosure of disordered eating was complex and different groups were more likely to be aware of the person's disordered eating recovery efforts than others. The groups most likely to be aware of and/or involved in the Study 1 participants' recovery efforts were found to be family, group commonly used for support with disordered eating and identification with others in recovery (recovery identification). Disclosure and concealment were complicated in Study 1: being open with others is an important part of recovering for some, and disclosure was often perceived positively, in line with previous conclusions (Bowlby et al., 2015). Therefore, due to the nature of the groups in Study 2 that participants were asked their strength of identification were groups that Study 1 participants tended to disclose their disordered eating to, and the limited research evidence suggests disclosure might benefit health/well-being during disordered earing recovery. Thus, it was predicted that the relationship between number of group identifications and mental health/well-being would be stronger for participants who feel are able to disclose their disordered

eating to their social groups (versus participants who feel that they are not able to disclose their disordered eating to their social groups):

H6.2. Concealment of disordered eating from social groups will moderate the relationship between number of group identifications and mental health/well-being, so that more group identifications will predict better mental health and well-being, but only for participants who are low in disordered eating concealment (not for those who are high in disordered eating concealment).

Group compatibility moderation hypothesis

Within Social Cure literature, group compatibility means people find it easy to simultaneously belong to multiple groups within their social network (Iyer et al., 2009). There is currently no published knowledge regarding the importance of compatibility of social groups for people seeking disordered eating recovery, however, SIA claims that high group compatibility is beneficial for health/well-being (Jetten et al., 2017). As such, group compatibility was expected to moderate the relationship between number of group identifications and mental health/well-being. Group compatibility was a core element oSIMs within Study 1a (see in Table 4.2). Participants' oSIMs highlighted that they were generally happy with their social identity networks, despite the existence of any 'incompatible' or 'very incompatible' social groups. Arguably, as participants in Study 1a could still be happy with their social identity networks, that incompatible social groups are not necessarily detrimental to disordered eating recovery. However, as the research into social group compatibility suggests that compatibility of groups benefits health/well-being (Iyer et al., 2009; Jetten et al., 2017), compatible groups could also benefit the health/well-being of people seeking disordered earing recovery. As such, it was predicted that the relationship between number of group identifications and mental health/well-being would be stronger for participants that have compatible social groups (versus participants who have incompatible social groups):

H6.3. Group compatibility will moderate the relationship between number of group identifications and mental health/well-being. So, more group identifications will predict better mental health (lower disordered eating symptoms, anxiety symptoms, and depression symptoms) and well-being (higher satisfaction with life), but only when those group are perceived as being compatible (not when those groups are not perceived as being compatible).

Mediation hypothesis

Throughout Study 1, social support was highlighted as a key benefit provided by social groups that aided participants' disordered eating recovery. It was emphasised that the support provided by the members of the social groups in question did not have to be specifically related to promoting disordered eating recovery: it could be more general support as the group helped the person recovering achieve the 'normality' they sought for their recovery (e.g., by seeing the person for them and not for their disordered eating). Social Cure research has shown that social support is a key resource through which group identification predicts health/well-being (Haslam et al., 2005). So, it was predicted that multiple group identifications would predict health/well-being through social support:

H6.4. Social support will mediate the relationship between number of group identifications, mental health/well-being. More group identifications will predict higher social support, which in turn will predict better mental health (lower disordered eating, anxiety, and depression symptoms) and well-being (higher satisfaction with life) for people seeking disordered eating.

Moderated mediation hypotheses

Concealment and social support moderated mediation models

The researcher predicted that the relationship between number of identifications and mental health/well-being would be moderated by concealment (H6.2). It was also thought that the mediation model (H6.4) would also be moderated by concealment and a moderated mediation

model was devised. Study 1 findings showed an intertwined relationship between disclosure/concealment of disordered eating and social support, specifically that support for disordered eating recovery could be provided by social groups that were aware of the disordered eating and once aware groups could provide support to the person recovering. Due to this relationship between social support and disclosure of disordered eating, it was predicted that the relationship between number of group identifications and social support would be stronger for participants who disclosed to their social groups about their disordered eating versus participants who did not. Ultimately, it was predicted that the relationship between number of group identifications and mental health/well-being through social support will be stronger for participants who feel able to disclose their disordered eating to their social groups (as opposed to participants who do not feel they are able to disclose their disordered eating to their social groups):

H6.5. Concealment will moderate the indirect effect of number of identifications on mental health, and well-being via social support. More specifically, it is predicted that number of group identifications will positively predict social support, but only for those low in concealment of their disordered eating, then social support will predict better mental health and well-being.

Group compatibility and social support moderated mediation models

Finally, as the researcher predicted that the relationship between number of identifications and mental health/well-being would be moderated by group compatibility (H6.3), it was also predicted that the mediation model (H6.4) would also be moderated by group compatibility and a moderated mediation model was devised. Study 1 findings that even if groups within participants' social identity networks were incompatible, the groups could still provide support for disordered eating recovery. Suggesting there could be an interaction between compatibility and support, but more work is needed to explore this potential interaction. As such, it was predicted that the relationship between number of group identifications and social support would be stronger for

participants who had compatible social groups versus participants who had incompatible groups. Ultimately, it was predicted that the relationship between number of group identifications and mental health/well-being through social support will be stronger for participants who perceive their social groups to be compatible (as opposed to participants who do feel their social groups are incompatible):

H6.6. Compatibility will moderate the indirect effect of number of identifications on mental health, and well-being via social support. Specifically, number of group identifications will positively predict social support, but only for those with compatible social groups, then social support will predict better mental health and well-being.

6.4. Study 2: Methods

6.4.1. Study 2: Participants

Study 2a Participants

Initially, 244 participants consented to taking part in Study 2a. Fifty-nine participants were removed from the data set (*n*=59), yielding a sample of 185 participants (11 non-females, 170 females; M_{age}= 26.42, *SD*= 9.24, range= 18-59), 4 participants did not provide complete demographic information, but enough to be included into the analysis.

The 59 excluded surveys were excluded due to one of two reasons. Firstly, one participant had completed the survey 3 times, this was noted as they had used the same email address each time, and because the researcher could not be sure of their true answers, all 3 cases had to be removed. Secondly, the other 56 were considered incomplete: 24 participants completed ≤11% of the survey; 6 participants completed 18%; 11 completed 24%; 4 participants completed 31%; 3 completed ≤36%; 5 participants completed ≤49%; 2 participants completed 54%, and finally 1 participant completed 74%. Missing data is common within research, especially when the research is longitudinal, as such there are a variety of methods to handle missing data (Streiner, 2002). Researchers have chosen to remove data entries when the participant has not completed

the outcome variable (dos Santos & Pereira, 2021). Following this example, the 56 participants did not complete any/all the mental health/well-being variables, which led to their exclusion from the Study 2a analyses.

Study 2b Participants

From the original 185 participants that completed the T1 survey, 156 agreed to be contacted to take part in the T2 survey, thus the maximum sample that would be recruited for Study 2b could be 156. Of the 156 T1 participants who were contacted, 99 completed the T2 survey, once 1 incomplete response was removed from the data-file for the reason stated above (6 non-females, 90 females; M_{age}= 27.73 years, *SD*= 9.16, range= 18-59), 3 participants did not provide complete demographic information, but enough to be included into the analysis.

Sample size analysis

Study 2a sample

A statistical power analysis was performed for sample size estimation, using G*Power 3.1. (Faul, Erdfelder, Buchner, & Lang, 2009). Assuming an alpha of .05 and .80 power, the projected sample size needed for a medium effect size (*d* = .50, using Cohen's (1988) criteria) is *N* = 92 (G*Power 3.1), for the most complex model being explored within this cross-sectional analysis: a moderated mediation exploring the number of group identifications, social support, concealment of disordered eating, health/well-being, and control variables of age, gender, and ED diagnosis. Therefore, the current sample (*N* = 185) means that the Time 1 study has appropriate power. Additionally, a post-hoc statistical power analysis was performed to identify the observed power for the actual sample size of 185. Within the model with the largest number of variables (a moderated mediation exploring the number of group identifications, social support, concealment of disordered eating, health/well-being, and three control variables), the effect size was calculated as r^2 = .25. With an alpha of = .05 and a sample size *n* = 185, the projected power for the found effect size = 1.0. This finding thus provides additional evidence that the Study 2a has

appropriate power in order to test the hypotheses outlined above (Bausell & Li, 2002; Cohen, 1992).

Study 2b sample

Again, assuming an alpha of .05 and .80 power, the projected sample size needed for a medium effect size (*d* = .50, using Cohen's (1988) criteria) is approximately *N* = 92 (G*Power 3.1; Faul et al., 2009), for the most complex model being explored within this longitudinal analysis: a moderated mediation model (Figure 7.1.). Therefore, the current sample (*N* = 99) means that Study 2b has appropriate power. Through a post-hoc statistical power analysis an effect size was calculated as r^2 = .30. With an alpha of = .05 and a sample size *n* = 92, the projected power for the found effect size = .99. This finding thus provides additional evidence that the Study 2b has appropriate power to test the hypotheses outlined above (Bausell & Li, 2002; Cohen, 1992). As such, it can be claimed that with the sample and power provided for Study 2b it is appropriate to accept or reject Study 2b hypotheses.

Demographic Characteristics

Age

Study 2a

The age range of the 185 participants within Study 2a sample ranged from 18-59 (M_{age}= 26.42, *SD*= 9.24), highlighting that seeking disordered eating recovery can occur at a wide variety of ages. However, it should be noted that when exploring the age range further age is positively skewed (skewness = 1.69) and positively peaked (kurtosis = 2.39).

Study 2b

The age range of the 99 participants within Study 2b ranged from 18-59 (M_{age}= 27.73, *SD*= 9.16), again showing that seeking disordered eating recovery occurs at a wide variety of ages. As with Study 2a, the age of the sample in Study 2b was positively skewed (skewness = 1.73, *SE*= .25) and positively peaked (kurtosis = 2.78, *SE*= .49).

As the age in both Study 2a and Study 2b were both positively skewed and peaked it suggests a peaked clustering of younger participants (Field, 2009). This is typical of the disordered eating population (NICE, 2017), so having a large number of younger participants in this sample was not considered problematic. Nonetheless, age was controlled for in all of the statistical analyses in both Study 2a and Study 2b in order to address this.

Gender

Study 2a

It should also be noted that gender was non-normally distributed in Study 2a, with skewness of -1.29 (*SE*= .18) and kurtosis of 9.27 (*SE*= .36). When investigating the skewness and kurtosis (through a histogram), a peaked clustering of female participants was observed (Field, 2009) as 91.9% (*n* = 170) of the participants were female, while 5.9% (*n* = 11) were non-female, and 2.2% (*n* = 4) identified as 'other'.

Study 2b

Gender was also non-normally distributed in Study 2b, with skewness of -2.25 (*SE*= .25) and kurtosis of 10.57 (*SE*= .49). When investigating the skewness and kurtosis (through a histogram), it showed a peaked clustering of female participants (Field, 2009) as 90 of the 99 participants were female (90.91%), 7 were male (6.06%), 1 identified as "other" (1.01%), and 2 did not disclose their gender (2.02%).

As with age, this gender imbalance is often found within disordered eating research, as in 2017/18, 90% of hospital admissions in the UK due to an ED were females (NICE, 2017). Therefore, as this is a common occurrence within this field of research it can be suggested that the sample is likely to be representative of the population. The sample may be representative of disordered eating within the population, but gender was controlled for in all statistical analyses. It must be noted that to retain the maximum number of participants, the participants who identified as 'other', or did not disclose their gender, were still included and thus in the statistical analysis the binary variable of gender will be defined as 'female' and 'non female'.

Diagnosis vs no diagnosis

Study 2a

All participants self-identified as having concerns about their disordered eating behaviours and thoughts, but it was not necessary for participants to have been diagnosed with an eating disorder (ED) or have received treatment for an ED. One hundred and five participants had received an ED diagnosis compared to 80 without. Independent *t*-tests were conducted to explore any differences between those with and without an ED diagnosis in their reported disordered eating symptoms. There was no significant difference in the disordered eating symptoms reported by those with an ED diagnosis (*M*= 16.80, *SD*= 4.70) and those without (*M*= 15.80, *SD*= 4.16); t(183) = 1.51, *p*= .12.

Study 2b

As exploring the disordered eating spectrum was a key part of this study, it was also deemed important to investigate any differences between those with and without an ED diagnosis longitudinally. Seventy-three participants had received an ED diagnosis compared to 24 without, 2 participants did not report this information. As such, independent *t*-tests were conducted to explore any differences between those with and without an ED diagnosis in their reported disordered eating symptoms. There was no significant difference in the disordered eating symptoms reported by those with an ED diagnosis (*M*= 18.93, *SD*= 12.91) and those without (*M*= 15.67, *SD*= 11.43); t(95) = 1.10, *p*= .13.

As there were no significant differences in the disordered eating scores for those with an ED diagnosis and those without an ED in both Study 2a and Study 2b, it was deemed appropriate to utilise the disordered eating spectrum (combining both those with and without an ED diagnosis) in all statistical analyses. However, as with age and gender, diagnosis will also be controlled for in all statistical analyses.

Participant Recruitment

Study 2a

Participants were recruited through adverts on social media (e.g., Twitter and Facebook), and via a variety of eating disorder charity websites from around the world (e.g., Beat; NEDA; Bodywhys; and Eating Disorders Victoria). The adverts used on social media, in the emails sent to charities and the full poster advert information can be seen in Appendix 7. Other recruitment strategies utilised were posters placed around the NTU city campus, and the NTU SONA system research credits scheme. Participants recruited via the SONA system (i.e., Psychology students at NTU) received 3 course credits for completing the survey. Participants who completed the survey through any other of the recruitment strategies were able to opt-in to a prize draw once they had completed the survey. There were 3 prizes on offer: one £50 Amazon voucher and two £25 Amazon vouchers.

Study 2b Recruitment

Participants were contacted via the email address they had supplied during their completion of the T1 survey. Again, participants who completed the T2 survey were able to opt-in to a prize draw for one £50 Amazon voucher and two £25 Amazon vouchers. Initial contact with the 156 participants was made exactly six months after they had completed the first survey. Participants were contacted a maximum of three times regarding completion of the follow-up survey (one email reminder per week for up to three weeks); participants thus completed the follow-up survey between six to seven months after completing the first survey (M_{days}= 199.74, *SD*= 15.64, range= 177-262 days between T1 and T2 survey completion).

6.4.2. Study 2: Procedure and design

Ethical approval was granted by Nottingham Trent University's College of Business, Law and Social Sciences Research Ethics Committee (reference no. 2018/204). Following ethical approval, participants were recruited, each participant was told what the study was about, why it was being conducted, and how their answers would be kept confidential using a unique identifier. As Study 2 was longitudinal, participants provided an email address at the end of the T1 survey to enable

them to be contacted with the T2 survey, thus their data were not anonymous. To ensure that this information remained confidential, email addresses and data were stored in separate password-protected data files, so only the researcher was able to connect participants data to their email addresses. It was made clear to participants that participating in this study was voluntary and they were free to stop completing the survey at any time. The withdrawal process was explained, and participants were told that there would be no repercussions should they choose to withdraw from the study. Participants were provided with the contact details for the researcher and her Director of Studies, should they have had any questions before, during, or after taking part in the study.

Participants then gave their informed consent to take part in the T1 survey. Once consent was provided, participants created a unique identifier for themselves: the first letter of their first name; the first letter of the town in which they were born, the date of the day they were born; the last letter of their surname; and the first three letters of the month in which they were born (e.g., JS01EJUN). As this was a longitudinal study, it was essential that all participants had a unique identifier so their answers could be connected across time points. Participants then completed the survey which included the measures described in the next section. Participants responded to the group identification scale; social support scale and concealment scale for a family group first, followed by repeating those scales for a friendship group and finally for a group they used for support. However, if participants stated they did not have one or more of those groups they skipped the scales related to that/those group(s). Once participants completed the T1 survey, they were able to consent to being contacted with the follow-up survey (T2 survey, involved the same design and procedure as this T1 survey). Finally, an important consideration was that Study 2 was being completed completely online, as such, the researcher would be unaware of any potential harm experienced by participants as a consequence of completing this survey (e.g., confronting unpleasant issues leading to distress). However, to account for this all participants were presented with a debrief sheet, in which contact details for a variety of charities were

provided (including charities in the UK, Ireland and the USA), as well as a reminder about the participants' unique identifier, the withdrawal details, and the researcher's contact details.

6.4.3. Study 2: Materials

6.4.3.1. Social identification measures

Group identification

The first measure was a four-item Group Identification Scale (GIS; Sani, Madhok, Norbury, Dugard, & Wakefield, 2015a: e.g., "I feel a bond with my [group]"). Participants indicated their agreement with each of the items using a Likert scale ranging from 1 ("Totally disagree") to 7 ("Totally agree"). The four items were averaged to create an overall measure, with higher values indicating stronger identification with their group. This scale was utilised four times throughout the T1 and T2 surveys to explore identification with family (T1: α= .95; T2: α= .94), friends (T1: α= .96; T2: α= .88), a group used for support with disordered eating (T1: α= .88; T2: α= .92), and other people in recovery from disordered eating (T1: α= .81; T2: α= .74). Participants were able to define family 'in any way you wish' (e.g., immediate, or extended family etc.), friends as 'one group of friends' and a group used for support from a list of different groups (e.g., sports team, support group, religious group, etc.).

Exploring the total number of groups that participants identified was an important aspect of this study, and this construct and has been explored in various Social Cure studies (Miller et al., 2017; Sani et al., 2015a; Sani et al., 2015b; Wakefield et al., 2018). This study utilised the same procedure of calculating a total number of group identifications as Sani et al., (2015a; 2015b). A participant was defined as identifying with a specific group if their mean identification score for that group was five or more, while they were defined as not identifying with a specific group if their mean identification for that group score was less than five. A binary variable was then created for each of the four groups, where the participant received a value of one if they identified with that specific group, or a value of zero if they did not identify with that specific

group. If participants did not report membership of a particular group, they automatically received a zero for that group. These four binary variables were then summed, giving each participant a 'number of group identifications' score, which could range from zero (participant identifies with no groups) to four (participant identifies with all four groups).

Social support

Participants then answered a four-item received social support scale (Haslam, Jetten, Cruwys, Dingle, & Haslam, 2018; e.g., "Do you get the emotional support you need from other people in your [group]?"). Haslam et al. (2018) adapted the original ten-item scale (Haslam et al., 2005) to create the four-item version. This measure comprehensively addresses four dimensions of received social support: emotional support, companionship, instrumental support, and informational support (Haslam et al., 2018); as such it was appropriate to evaluate received social support in this study. Participants indicated their agreement with each of the items using a Likert scale ranging from 1 ("Not at all") to 7 ("Completely"). The four items were averaged to create an overall measure. Once support for the three groups was calculated, family (T1 α= .93; T2: α= .94), friends (T1: α= .96; T2: α= .93), and a group used for support with disordered eating (T1: α= .88; T2: α= .90), an overall support variable was created by summing the three mean values to provide a total support score. It could be argued that family, friends, a group used for support provide social support, while recovery identification was measured as an imagined community and identification with group may not provide the same support. As such, received social support was not measured for recovery identification.

Concealment

The fourth measure was a two-item Concealment scale (Molero, Fuster, Jetten, & Moriano, 2011), that was used to explore participants' thoughts about whether disclosing their disordered eating was a good idea and whether they disclosed their disordered eating to their three groups (family, friends, and a group used for support). The first item "To what extent do you think it is best not to tell your [group] you have disordered eating?" was rated on a 5-point scale (1 "Best

not to tell anyone" to 5 "Best to tell everyone"). The second item "To what extent do you tell your [group] you have disordered eating?" was rated on a 5-point scale (1 "I do not tell anyone" to 5 "I tell everyone"). The items were reverse scored, so higher scores indicated higher levels of concealment, and then the mean was obtained. Once concealment for the three individual groups was calculated, family (T1: r= .87, p< .001; T2: r= .85, p< .001), friends (T1: r= .87, p< .001; T2: r= .81, p< .001), and a group used for support with disordered eating (T1 r= .89, p< .001; T2: r= .89, p< .001), an overall concealment variable was created, by summing the three averages to create an overall concealment measure.

Group compatibility

Compatibility of participants' social groups was measured by asking participants to think about all the groups they belong to (including the four groups mentioned in this study and any others). This was done because previous findings indicate that group memberships are important for well-being, but that the collective compatibility of all group memberships in one's social network affects the extent to which group identification enhances mental health/well-being (Bentley et al., 2019 & Cruwys et al., 2016). As such, exploring the compatibility of all the groups in participants' social networks was important for this study. To explore this, the four-item Multiple Identity Compatibility Scale (Haslam et al., 2018; e.g., "On the whole, it is easy to be a member of my various groups") was utilised. This is a recently developed scale addressing four key elements of compatibility: harmony amongst groups, ease of belonging to different groups, consistent norms among groups, and similarity of membership to groups (Haslam et al., 2018). Participants reported their agreement with the items on a 7-point Likert scale, 1 ("Do not agree at all" to "Agree completely"). The mean of the items was found in order to create an overall score for this measure (T1: α= .85; T2: α= .92), where higher values indicate higher compatibility.

6.4.3.2. Well-being measure

Satisfaction with Life

Participants' Satisfaction with life (SWL) was measured with Diener, Emmons, Larsen, and Griffin's, (1985) five-item scale. Participants rated their agreement with each of the statements (e.g., "In most ways my life is close to ideal") using a 7-point scale (1 "Totally disagree" to 7 "Totally agree"). The mean of the items was found in order to create an overall SWL score (T1: α= .91; T2: α= .92), where higher values indicate greater SWL. Since its creation, the psychometric properties have been established consistently throughout Social Cure work (Chang, Jetten, Cruwys, Haslam, & Praharso, 2016; Haslam, Cruwys, Haslam, & Dingle, 2016; Haslam, Haslam, Ysseldyk, McCloskey, Pfisterer, & Brown, 2014; Praharso et al., 2017; Wakefield, Bickley, & Sani, 2013), as such was suitable for this study.

6.4.3.3. Mental health measures

Disordered eating symptoms

Participants' disordered eating symptoms were measured with the 16-item Eating Attitudes Test-16 (EAT-16: Ocker, Lam, Jensen, & Zhang, 2007). Participants reported their current experience with each item (e.g., "I am terrified of being overweight"), using a 1-6 scale ('Never' to 'Always'). Responses were re-scored as per the scale authors' instructions (Ocker et al., 2007; Manjrekar, Schoenleber, & Mu, 2013), and an overall score was obtained for each participant (T1: α= .93; T2: α= .92), with higher scores indicating stronger disordered eating symptoms. The EAT-16 is a shortened version of the more commonly used EAT-26 (Garner, Olmsted, Bohr, & Garfinkel, 1982), which is designed to be utilised within a non-clinical sample. Since its creation, the EAT-16 has been used to explore eating attitudes and behaviours within a variety of contexts (Botchway, Wiafe-Akenteng, & Atefoe, 2015; Lilienthal & Weatherly, 2013a; Lilienthal & Weatherly, 2013b; Manjrekar, Schoenleber, & Mu, 2013). Reportedly the EAT-16 is better than the original scale (e.g., better for use with participants from certain ethnic communities: Belon, Smith, Bryan, Lash, Winn, & Gianni, 2011). The EAT-16 has demonstrated acceptable psychometric properties in previous literature (Lundahl, Wahlstrom, Christ, & Stoltenberg, 2015;

Ocker et al., 2007), supporting the use of this scale within this study. In an exploration of the validation of the EAT-16, researchers suggested that there are no strict cut-off values for the EAT-16, since the cut-offs would change depending on the setting, as well as on the specific purpose for which the EAT-16 was used (McLaughlin, 2014). Previous researchers had also not utilised any cut-off values when exploring disordered eating within a sub-clinical population (Manjrekar, Schoenleber, & Mu, 2013). As such, it was deemed appropriate to utilise the EAT-16 as a continuum of disordered eating, where higher scores represent stronger disordered eating symptoms, rather than using cut-offs.

Anxiety and depression symptoms

Participants' anxiety and depression symptoms were measured with the Hospital Anxiety and Depression Scale (HADS: Zigmond, & Snaith, 1983). This scale has 14 items; 7 items assessed anxiety symptoms (e.g., "I feel tense or wound up") and 7 items assessed depression symptoms (e.g., "I have lost interest in my appearance"). Participants rated the extent to which they had experienced each symptom during the past week, using a 0-3 scale (0-3 were represented with different phrases for each item, e.g., 'not at all' - 'most of the time'; 'Definitely as much' – 'Hardly at all'). Each participant received a score for anxiety (T1: α= .82; T2: α= .84) and another score for depression (T1: α= .84; T2: α= .85), scores range from 0 (no anxiety/depression) to 21 (very high severity of anxiety/depression). The HADS has been used within a variety of studies, exploring anxiety and depression within different contexts (Barker, Lincoln, Hunt, & dasNair, 2018; Crawford, Henry, Crombie, & Taylor, 2001; Haslam, Haslam, Jetten, Bevins, Ravenscroft, & Tonks, 2010; Wakefield et al., 2013; Wakefield et al., 2020; Walsh, Muldoon, Gallagher, & Fortune, 2015). As highlighted within Chapter 1, people with disordered eating also often experience co-morbid anxiety and depression symptoms (Boehm et al., 2018; Carrot et al., 2017; Ferreiro et al., 2011; Franko et al., 2018; Micali et al., 2015; Pallister & Waller, 2008; Spindler & Milos, 2007; Touchette et al., 2011). As such, when investigating the mental health of people seeking disordered eating recovery and to appropriately address the hypotheses outlined in Section 6.3, it was suitable to also explore their anxiety and depression symptoms.

Demographics

Finally, participants were asked to specify their age, gender (male, female, and other); whether they had an ED diagnosis (yes or no) and if "yes", what their ED diagnosis was, whether they are currently receiving treatment for that diagnosis (yes or no).

6.4.4. Study 2: Statistical analyses information

Statistical analyses utilised throughout Study 2

To investigate Study 2a and Study 2b hypotheses a series of analyses will be conducted in to test the hypotheses. SPSS (Version 25; IBM Corp., 2015) was utilised throughout Studies 2a and 2b to explore the descriptive statistics and partial correlations (to control for certain variables, e.g., age and gender) between the core variables. Then a series of hierarchical regression models will be conducted through SPSS, to investigate the relationship between the main predictor variable (Study 2a: number of group identifications, Study 2b: T1 number of group identifications; change in number of group identifications between T1 and T2; and change in recovery identification between T1 and T2) and mental health/well-being variables (SWL; disordered eating symptoms; anxiety symptoms; and depression symptoms). Following the hierarchical multiple regressions, a series of moderation, mediation, and moderated mediation analyses (otherwise known as conditional indirect effect analyses) were conducted. To test these moderation, mediation, and moderated mediation models the PROCESS macro (Version 3.4; Hayes, 2017) for SPSS was used. All moderation analyses were conducted using model one; all mediation models were tested with model four; and the moderated mediations were analysed with model seven, all as outlined by Hayes (2017). Within these analyses the percentile confidence interval method was used, involving 5,000 bootstrapping samples with 95% lower (LLCI) and upper (ULCI) confidence intervals. In these analyses, a relationship between two variables is considered to be significant if zero does not fall within the upper and lower confidence intervals (i.e., both are either positive or negative; Hayes, 2017).

Consideration of Type 1 and Type 2 error

In addition to the statistical analyses being used here, it is important to note that there are a considerable number of hypotheses being explored across Study 2 (Study 2a: 6 hypotheses, and Study 2b: 18 hypotheses); consequently, there is an increased risk of Type 1 errors occurring (Rubin, 2017). As this thesis is exploratory in nature, it was expected that a considerable number of tests would need to be utilised to fully investigate the relationship between group identifications and mental health/well-being for people in/seeking disordered eating recovery. It has been suggested that exploratory researchers utilise a wide variety of variables in their research and then only present the findings that are deemed statistically significant (Wagenmakers et al., 2012). Therefore, by presenting all the findings from Study 2 the risk of Type 1 errors is higher, but equally it illustrates that the researcher is not cherry picking from their analyses.

Due to the risk of Type 1 error, it could be suggested that maintaining the alpha level of $p < .05$ is incorrect for Study 2 because of the number of tests being conducted and that Study 2 should have a more stringent alpha level (Rubin, 2017). However, to counter this, researchers have argued that while reducing the alpha level in studies that test multiple hypotheses will reduce the risk of Type 1 errors occurring, it will also increase the risk of Type 2 errors (Forstmeier et al., 2016). de Groot (2014, p. 193) stated: "it is impossible to correct statistically for the fact that a test was exploratory rather than confirmatory", thereby suggesting that adjustments to the *p* values in exploratory studies to align with confirmatory analyses are not possible, as it is not possible to do this correctly. Additionally, it has been claimed that in exploratory investigations the *p* value loses meaning due to an unknown inflation of the alpha-level (Nosek & Lakens, 2014). Therefore, due to the exploratory nature of this research, it could be argued that despite the risk of Type 1 errors occurring, it would be worse to miss out on a relevant finding (i.e., have a false negative) compared to a false positive (Pike, 2011). Future research can then explore these initial findings with the aim to confirm whether these findings did support the hypotheses or were false positives, where the focus would be on limiting Type 1 errors (Forstmeier et al., 2016).

Taking all of this into account, the researcher has chosen to utilise p< .05 as the statistical cut-off for Study 2 and acknowledges that while the relatively large number of statistical comparisons increases the risk of Type 1 errors, due to Study 2 being exploratory, any findings should not be seen as confirmatory, but instead should be seen as potential areas of interest for future research. It should be highlighted that any claims throughout Study 2, especially those with a significance value of between .01 and .05 within the moderation, mediation, and moderated mediation analyses, are being made tentatively. As the goal of the present research (i.e., to explore the relationship between group identifications and mental health/well-being for people in disordered eating recovery) is clearly presented as exploratory and not confirmatory, the readers' expectations of the findings should be adjusted accordingly (Jager & Halliday, 1998).

Effect sizes throughout Study 2

Throughout all analyses in Study 2, the guidelines from Cohen (1988) will be followed regarding effect sizes. Specifically, all effect sizes relating to correlations will be classed as small (.10 - .29), medium (.30 - .49), and large (.50 - 1.0) (please refer to Section 6.5.2 and Section 7.4.3). For *t*-tests (Sections 6.5.2, Section 7.4.2, and Section 7.4.3), the effect sizes will be assessed by exploring the Eta squared (η^2), which is calculated by the following equation: $\frac{t^2}{t^2+(N-1)}$. The effect size will then be classified as small (.01), medium (.06), and large (.14; Cohen, 1988). For the Chi square tests (Section 6.5.2 and Section 7.4.3), effect sizes will be identified by the phi coefficient and be categorised as small (.10), medium (.30), and large (.50). For the hierarchical regression analyses in Study 2 (Section 6.5.3 and Section 7.4.4) the effect sizes will determined by the f^2 which is calculated using the following equation: $f^2 = \frac{r^2}{1-r^2}$. Effect sizes will then be classified as small (≤ .2), medium (≤ .5), and large (≤ .8).

Compared to the above tests, there is less guidance regarding effect sizes for the moderation, mediation, and moderated mediation models (Hayes 2018). However, as effect sizes are seen as a central component of statistical exploration (Preacher & Kelly, 2011), the researcher will also explore the effect sizes for these analyses. For the moderation models (Section 6.5.4 and

Section 7.4.5) the effect size of the moderation will be assessed via f^2, through the following equation: $f^2 = {d^2}/{4}$ (Kenny, 2018). The levels of the effect sizes for moderation models are small (.02), medium (.15), and large (.35; Cohen, 1988). For the mediation models (Section 6.5.5 and Section 7.4.6), the effect sizes will be assessed by the standardised effect size (Miočević, O'Rourke, MacKinnon, & Brown, 2018): small (2% of the variance), medium (13% of the variance), and large (26% of the variance). Finally, for the moderated mediations (Section 6.5.6 and Section 7.5.7), the size of the index of moderated mediation will be utilised to determine effect size (Hayes, 2015). There is no set guidance for how to measure the effect size levels for moderated mediations, as Hayes (2018), which could be due to a reluctance to place qualitative labels on quantitative data (Kelly & Preacher, 2011). As such, the researcher will utilise the same cut-offs as with the mediation analyses.

Hierarchical multiple regression assumptions testing

Before conducting Study 2a hierarchical multiple regressions, the control variables of age, gender, ED diagnosis (or not) and outcome variables (satisfaction with life (SWL); disordered eating symptoms (EAT-16); anxiety and depression symptoms (HADS)) were checked to ensure they met the assumptions. The control variables for Study 2b: age, gender, ED diagnosis (or not), and the T1 health/well-being variable, and outcome variables (T2 satisfaction with life (SWL); T2 disordered eating symptoms (EAT-16); T2 anxiety and depression symptoms (HADS)).

The tolerance values for the four Study 2a models were .98 (age; diagnosis, and number of group identifications) and.99 (gender) and the Variance Inflation Factor (VIF) values were 1.01 (gender), 1.02 (age, diagnosis, and number of group identifications). The tolerance value for the first four Study 2b models were between .83 (T1 number of group identifications); .84 (the change in number of group identifications over time); .98 (age and gender) and .99 (ED diagnosis) and the VIF values were .02 (age, gender, ED diagnosis) and 1.20 (T1 number of group identifications and change in number of group identifications over time). The tolerance values for the final four Study 2b models were .86 (change in recovery identification over time) .87 (T1 recovery identification);

.97 (ED diagnosis) .98 (age and gender). The VIF values were 1.02 (age, gender, ED diagnosis), 1.15 (T1 recovery identification), and 1.17 (change in recovery identification over time). These show a lack of multicollinearity within all 12 regression models (Pallant, 2016).

The Durbin-Watson values for the four Study 2a models were 1.87 (SWL), 1.90 (disordered eating symptoms), 2.00 (anxiety symptoms), and 2.30 (depression symptoms). The first four Study 2b Durbin-Watson values were 2.04 (T2 SWL), 1.71 (T2 disordered eating symptoms), 2.31 (T2 anxiety symptoms), and 2.32 (T2 depression symptoms). The final Study 2b Durbin-Watson values were 1.81 (T2 SWL), 1.83 (T2 disordered eating symptoms), 2.06 (T2 anxiety symptoms), and 2.09 (T2 depression symptoms). As none of these Durbin-Watson values significantly differed from 2, the residual values were uncorrelated for all 12 hierarchical regression models (Field, 2009). Plots for the standard residuals versus the standardised predicted values for all 12 hierarchical regression models showed no obvious funnelling, indicating that homoscedasticity assumptions had been met (Field, 2019). Finally, no Cook's Distance values were above 1 in any of the 12 models, thereby showing no individual cases influenced the model (Tabachnick & Fidell, 2014).

Histograms of the four Study 2a outcome variables (SWL; disordered eating symptoms; anxiety symptoms; and depression symptoms) and the four Study 2b outcome variables (T2 SWL; T2 disordered eating symptoms; T2 anxiety symptoms; T2 depression symptoms) suggested they were normally distributed, and the four variables' absolute skewness and kurtosis values were smaller than 3.29 (the critical value at which $p < .001$; Field, 2009). However, as initially discussed in Section 6.4.1, both age and gender were significantly skewed and therefore were controlled throughout the following analyses. The statistics showed no differences between people with and without an ED diagnosis (see Section 6.4.1), however, diagnosis was also utilised as a control variable to ensure that this had no influence on the relationships being explored.

6.5. Study 2a: Results

6.5.1. Analysis overview

To investigate the hypotheses stated in section 6.3, a series of cross-sectional analyses were conducted. Hypothesis 6.1 was explored through the cross-sectional descriptive statistics, correlations, and hierarchical multiple regressions. Four regression models tested the relationship between the main predictor variable (number of group identifications) and each of the mental health variables (disordered eating symptoms, anxiety symptoms, and depression symptoms) and well-being variable (satisfaction with life). The moderation analyses were to test hypotheses 6.2 and 6.3. Then, mediation analyses tested hypothesis 6.4. Finally, moderated mediation analyses were utilised to test hypothesis 6.5 and hypothesis 6.6.

6.5.2. Descriptive statistics and correlations

Table 6.1 shows the means and standard deviations for each of the main variables, along with their partial correlations (controlling for age, gender, and diagnosis). Supporting hypothesis 6.1 number of group identifications had a medium positive association with SWL (r_p[3] = .37, p< .001), a small negative association with disordered eating symptoms (r_p = -.22, p= .003), and anxiety symptoms (r_p = -.28, p< .001), and a medium negative association with depression symptoms (r_p = -.41, p< .001). Indicating that the more group identifications participants possessed, the higher their SWL was, and the lower their disordered eating symptoms, anxiety symptoms and depression symptoms were. However, the strongest relationship was between number of group identifications and depression symptoms.

[3] r_p is being used throughout Study 2a and Study 2b to denote a partial correlation and what you are controlling for

Table 6. 1. Descriptive statistics (possible ranges, means, standard deviations) and partial correlations for the T1 main variables

Variable	1	2	3	4	5	6	7	8
1. Number of group identifications (0-4; *M*=1.83; *SD*=1.07)	-							
2. Social support (0-20; *M*=9.18; *SD*=3.92)	**.60*** **	-						
3. Concealment of disordered eating (0-15; *M*=6.89; *SD*=2.73)	.04	**.35** **	-					
4. Group compatibility (1-7; *M*=4.65; *SD*=1.20)	**.39*** **	**.30*** **	-13	-				
5. Satisfaction with life (1-7; *M*=3.67; *SD*=1.56)	**.37*** **	**.42*** **	-.02	**.30*** **	-			
6. Disordered eating symptoms (4-24; *M*=16.37; *SD*=4.49)	**-.20** **	-.14	.13	**-.21** **	**-.26*** **	-		
7. Anxiety symptoms (2-20; *M*=11.88; *SD*=4.09)	**-.28*** **	**-.23** **	.03	**-.34*** **	**-.40*** **	**.32*** **	-	
8. Depression symptoms (0-18; *M*=7.58; *SD*=4.38)	**-.41*** **	**-.47*** **	-.06	**-.26** **	**-.64*** **	**.40*** **	**.48*** **	-

Note: ****p*< .001, ***p*< .01

These partial correlations were run controlling for: age, gender, and diagnosis.

As social support is a key component of hypotheses 6.4, 6.5, and 6.6, the partial correlations between social support from participants' three groups (family, friends, and a group used for support), and other key variables were further explored. Social support had a large positive association with number of group identifications (r_p = .60, *p*< .001), a medium association with concealment of disordered eating (r_p = .35, *p*< .001), and group compatibility (r_p = .30, *p*< .001). These significant correlations show a relationship between social support and other predictor variables (number of group identifications, concealment, and group compatibility), supporting the models testing H6.4, H6.5, and H6.6. Further to this, social support had a medium positive

association with SWL (r_p = .42, p< .001), a small negative association with anxiety symptoms (r_p = -.23, p= .002), medium negative association with depression symptoms (r_p = -.47, p< .001). There was no association between social support and disordered eating symptoms (r_p = -.14, p= .07), suggesting that increased social support is associated with increased SWL and reduced anxiety symptoms and depression symptoms.

Group compatibility forms one of the key variables in hypotheses 6.3 and 6.6, as such the partial correlations between group compatibility the other key variables were explored. Group compatibility had a medium positive association with number of group identifications (r_p = .39, p< .001), social support (r_p = .30, p< .001), and SWL (r_p = .30, p< .001). Group compatibility had a small negative association with disordered eating symptoms (r_p = -.21, p= .005), a medium negative association with anxiety symptoms (r_p = -.34, p< .001) and a small negative association with depression symptoms (r_p = -.26, p= .001). However, there was no association between group compatibility and concealment of disordered eating (r_p = -.13, p= .09). These show that greater group compatibility is associated with increased SWL and reduced anxiety symptoms and depression symptoms, supporting the models testing 6.3 and 6.6.

Finally, concealment of disordered eating from one's social group memberships was not significantly correlated with any of the main variables. This implies that there is no direct relationship between these variables, however, it could further strengthen the argument that concealment of disordered eating is a moderator on the relationship between number of group identifications and mental health/well-being as opposed to having a direct relationship with mental health/well-being. As such, further exploration of concealment will occur through moderation/moderated mediation analyses, which will be explored later in this chapter.

Exploration of the descriptive statistics of anxiety and depression symptoms

The HADS creators (Zigmond & Snaith, 1983) suggested that there are three cut-off categories within the HADS (mild cases: 8-10; moderate cases: 11-15; severe cases: 16 or above). However, some social identity researchers have utilised the HADS as a continuous measure

(Bjellan, Dahl, Haug, & Neckelmann, 2002; Gee, Hawes, & Cox, 2019; Gleibs et al.,2011; Levy et al., 2018; O'Donnell, Corrigan, & Gallagher, 2015; Wakefield, Bickley, & Sani, 2013). Conversely, other social identity researchers have used cut-offs, and a review of the social identity literature using the HADS concluded that a score of 8 or more on the anxiety or depression sub-scale is an appropriate cut-off for 'possible cases' of anxiety and depression (Bjellan et al., 2002). Both approaches used to create cut-offs (i.e., the approach recommended by Zigmond & Smith, 1983, and the approach used by various social identity researchers) use ≥ 8 as the score to represent people who do not meet the anxiety and/or depression threshold. As such, in this thesis, the HADS will be utilised similarly to how it has been used by other social identity psychologists, where the item scores are summed, and a score between 0 and 21 for both anxiety and depression will be provided, where ≥ 8 represents participants who are classed as having anxiety and/or depression symptoms (Bjellan et al., 2002; Gee et al., 2019; Gleibs et al., 2011; Levy et al., 2018; O'Donnell, Corrigan, & Gallagher, 2015; Wakefield et al., 2013). Exploration of the sample regarding the HADS and the percentage of participants that fell into each category created by the chosen cut-off method can be found in Section 6.5.2 and Section 7.4.3.

To investigate the boundaries of the HADS as outlined above (by utilising ≥ 8 as a potential case of anxiety/depression), a series of independent samples *t*-tests were conducted to explore differences according to the cut-off. As nine *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of $p < .006$ (i.e., .05/9) was utilised. Exploration of the Levene's test for equality of variances was not significant for the main variables highlighted in Table 6.2. There were no significant differences between participants who did vs. did not meet the anxiety cut-off at T1 in relation to: age, $t(183) = .25$, $p = .67$; number of group identifications, $t(183) = 1.75$, $p = .45$; recovery identity, $t(175) = -.36$, $p = .03$; social support, $t(182) = 2.34$, $p = .52$; concealment of disordered eating, $t(182) = -1.29$, $p = .63$; group compatibility, $t(182) = 4.02$, $p = .27$; SWL $t(183) = 5.14$, $p = .75$; and disordered eating symptoms, $t(183) = -3.53$, $p = .41$. Despite these not being significant, the effect sizes were still explored. A small effect size was found for anxiety symptoms at T1 and the following variables: number of group identifications ($\eta^2 = .02$); social support ($\eta^2 =$

.03); concealment of disordered eating (η^2 = .01). A medium effect was found between anxiety symptoms at T1 and two variables: group compatibility (η^2= .08) and disordered eating symptoms (η^2= .06). Finally, a large effect size was found between anxiety symptoms at T1 and the following variables: age (η^2= 3.43); recovery identity (η^2= 7.12) and SWL (η^2= .13). This indicated that at T1 participants who did vs. did not meet the cut-off for anxiety did not differ on the T1 central criteria.

Table 6. 2 Means and standard deviations for the main variables at T1 and Anxiety cut-off at T1

T1 variable	Below Anxiety cut-off (*N*=33)	Above Anxiety cut-off (*N*= 152)
Mean age (*SD)*	26.79 (*9.90*)	26.34 (*9.12*)
Mean number of group identifications (*SD)*	2.12 (*.99*)	1.76 (*1.08*)
Mean social support (*SD*)	10.64 (*3.64*)	8.87 (*3.92*)
Mean concealment of disordered eating (*SD*)	6.33 (*2.70*)	7.01 (*2.73*)
Mean recovery identification (*SD)*	4.58 (*1.75*)	4.68 (*1.37*)
Mean group compatibility (*SD)*	5.39 (*.97*)	4.50 (*1.19*)
Mean satisfaction with life (*SD)*	4.86 (*1.53*)	3.41 (*1.45*)
Mean disordered eating symptoms (*SD)*	13.94 (*4.62*)	16.89 (*4.30*)

A chi-square test revealed a small but significant association between scoring below vs. above the cut-off for anxiety at T1 and gender, $\chi^2(1) = 4.25$, $p = .04$, *phi*= -.18. This shows that the proportion of females who score above the cut-off for anxiety is slightly higher than non-females, although the skewness of this sample could be influencing this finding (as shown in Table 6.3). There was also a small but significant association between scoring below vs. above the cut-off for anxiety at T1 and whether the participant had an ED diagnosis, χ^2 (1) = 5.83, p =.02, *phi*= -.19. This shows that the proportion of participants with an ED diagnosis who scored above the cut-off for anxiety was slightly more than those without an ED diagnosis. Finally, there was a medium-sized significant association between scoring below vs. above the cut-off for anxiety at T1 and whether the participant had scored below or above the cut-off for depression, χ^2 (1) = 21.25, $p < .001$, *phi*= .35. This shows that the proportion of participants who scored above the cut-off for depression and that also scored above the cut-off for anxiety was moderately more than those who scored below the cut-off for depression.

Table 6. 3. Frequencies for main categorical variables for Anxiety cut-off at T1

T1 variable	Below Anxiety cut-off at T1	Above Anxiety cut-off at T1
Gender (Non-female)	5	6
Gender (Female)	28	146
Having an ED diagnosis	12	93
Not having an ED diagnosis	21	59
Below Depression cut-off	28	59
Above Depression cut-off	5	93

Following on in the investigation of the boundaries of the HADS (≤ 8 as a potential case of anxiety/depression) another series of independent sample *t*-tests were conducted to explore

differences according to the depression cut-off. As nine *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of $p < .006$ (i.e., .05/9) was utilised. Exploration of the Levene's test for equality of variances was not significant for the main variables highlighted in Table 6.4. There were no significant differences between participants who did vs. did not meet the depression cut-off at T1 in relation to: age, $t(183) = -.23$, $p = .36$; number of group identifications, $t(183) = 4.50$, $p = .02$; recovery identity, $t(175) = .32$, $p = .02$; social support $t(182) = 6.94$, $p = .07$; concealment of disordered eating, $t(182) = 1.36$, $p = .41$; group compatibility, $t(182) = 2.31$, $p = .25$; SWL, $t(183) = 8.26$, $p = .69$; and disordered eating symptoms, $t(183) = -5.31$, $p = .04$. Despite these not being significant, the effect sizes were still explored. A small effect size was found for depression symptoms at T1 and two variables: concealment of disordered eating ($\eta^2 = .01$) and group compatibility ($\eta^2 = .03$). A medium effect was found between depression symptoms at T1 and number of group identifications ($\eta^2 = .10$). Finally, a large effect size was found between depression symptoms at T1 and the following variables: age ($\eta^2 = 2.91$); recovery identity ($\eta^2 = 5.62$); social support ($\eta^2 = .21$); SWL ($\eta^2 = .27$); and disordered eating symptoms ($\eta^2 = .13$). This indicated that at T1 participants who did vs. did not meet the cut-off for depression did not differ on the T1 central criteria.

Table 6. 4. Means and standard deviations for the main variables at T1 and Depression cut-off at T1

T1 variable	Below Depression cut-off (*N*=87)	Above Depression cut-off (*N*= 98)
Mean age (*SD)*	26.25 (*8.31*)	26.56 (*10.04*)
Mean number of group identifications (*SD)*	2.18 (*.92*)	1.51 (*1.10*)
Mean social support (*SD*)	11.07 (*3.35*)	7.49 (*3.63*)
Mean concealment of disordered eating (*SD*)	7.18 (*2.65*)	6.63 (*2.79*)
Mean recovery identification (*SD)*	4.70 (*1.64*)	4.63 (*1.24*)
Mean group compatibility (*SD)*	4.87 (*1.27*)	4.46 (*1.10*)
Mean satisfaction with life (*SD)*	4.53 (*1.34*)	2.90 (*1.33*)
Mean disordered eating symptoms (*SD)*	14.63 (*4.69*)	17.91 (*3.70*)

A chi-square test did not reveal a significant association between scoring below vs. above the cut-off for depression at T1 and gender, $\chi^2(1) = 2.10$, $p = .15$, *phi*= -.13 (small effect). This shows that there is no difference between the proportion of females vs. non females who scored above vs. below the cut-off for depression. However, there was a small but significant association between scoring below vs. above the cut-off for depression at T1 and whether the participant had an ED diagnosis, $\chi^2 (1) = 10.46$, $p = .001$, *phi*= -.25. This shows that the proportion of participants

with an ED diagnosis who scored above the cut-off for depression was slightly more than those without an ED diagnosis (as shown in Table 6.5).

Table 6. 5. Frequencies for main categorical variables for Depression cut-off at T1

T1 variable	Below Depression cut-off at T1	Above Depression cut-off at T1
Gender (Non-female)	8	3
Gender (Female)	79	95
Having an ED diagnosis	38	67
Not having an ED diagnosis	49	31

6.5.3. Hierarchical regressions

Four hierarchical multiple regressions addressed hypothesis 6.1, by exploring the extent that number of group identifications predict SWL, disordered eating symptoms, anxiety symptoms, and depression symptoms, respectively. Gender (0= Female & 1= Non-female) and ED diagnosis (0= ED diagnosis & 1= No ED diagnosis) were coded as binary variables. Number of group identifications was coded from 0 (not identifying with any of the four groups: family, friends, a group used for support, and others in disordered eating recovery) to 4 (identifying with all four groups) and is a continuous variable. The control variables of age, gender, and having an ED diagnosis were all entered at step one, then number of group identifications was entered separately at step two. The variables were entered this way in order to explore the amount of variance explained in the outcome variable by the predictor variable (number of group identifications) after controlling for age, gender, and diagnosis. All four hierarchical regression model summaries can be found in Table 6.6.

Exploring whether number of group identifications predicts SWL

The first hierarchical regression tested whether number of group identifications predicted SWL. At Step 1, the control variables explained 5% of the variance in SWL. At Step 2, the whole model explained 19% of the variance, F (4, 180) = 10.49, p< .001. Number of group identifications significantly explained an additional 14% of the variance in SWL, after accounting for the control variables, ΔR^2 = .14, F change (1, 180) = 29.97, p< .001, the f^2= .17, showing that the addition of group identification has a medium effect on SWL. In the final model, number of group identifications was also a statistically significant predictor of SWL (β = .37, p< .001), also not having an ED diagnosis significantly predicted SWL (β = .18, p= .008). Therefore, having more group identifications predicted an increase in SWL, and not having an ED diagnosis also predicted an increase in SWL.

Exploring whether number of group identifications predicts disordered eating symptoms

The second hierarchical regression explored the relationship between number of group identifications and disordered eating symptoms. At Step 1, the control variables explained 4% of the variance in disordered eating symptoms, however, this was not significant (p = .60). At Step 2, the total variance explained in the model was 9%, F (4, 180) = 4.32, p= .002. Number of group identifications significantly explained an additional 5% of the variance in disordered eating symptoms, after accounting for the control variables, ΔR^2 = .05, F change (1, 180) = 9.38, p= .003, the f^2= .06, showing that the addition of group identification has a small effect on disordered eating symptoms. In the final model, two measures were statistically significant: number of group identifications was a stronger predictor (β = -.22, p= .003) than gender (β = -.16, p= .02). Therefore, having more group identifications predicted a decrease in disordered eating symptoms, and being female also predicted a decrease in disordered eating symptoms.

Exploring whether number of group identifications predicts anxiety symptoms

The next hierarchical regression model explored the relationship between number of group identifications and anxiety symptoms. At Step 1, the control variables explained 12% of the variance in anxiety symptoms. At Step 2, the total variance explained in the model was 20%, F (4, 180) = 10.92, p< .001. Number of group identifications explained a significant additional 7% of the variance in reported anxiety symptoms, after accounting for the control variables, ΔR^2 = .07, F change (1, 180) = 15.96, p< .001, the f^2= .10, showing that the addition of group identification has a small effect on anxiety symptoms. In the final model, three measures were statistically significant predictors of anxiety symptoms: number of group identifications (β = -.27, p< .001), gender (β = -.17, p= .01), and having an ED diagnosis (β = -.28, p< .001). Therefore, having more group identifications predicted a decrease in anxiety symptoms, having an ED diagnosis also predicted a decrease in anxiety symptoms, and finally, being female also predicted a decrease in anxiety symptoms.

Exploring whether number of group identifications predicts depression symptoms

The final hierarchical linear regression explored the relationship between number of group identifications and depression symptoms. At Step 1, the control variables explained 9% of the variance in depression symptoms. At Step 2, the total variance explained in the whole model was 24%, F (4, 180) = 14.53, p= .001. Number of group identifications significantly explained an additional 15% of the variance in reported depression symptoms, after accounting for the control variables, ΔR^2 = .15, F change (1, 180) = 36.34, p< .001, the f^2= .20, showing that the addition of group identification has a medium effect on depression symptoms. In the final model, two measures were statistically significant predictors of depression symptoms: number of group identifications was the strongest negative predictor of depression symptoms (β = -.39, p< .001), and having an ED diagnosis also predicted lower depression symptoms (β = -.27, p< .001). Therefore, having more group identifications predicted a decrease in depression symptoms, and not having an ED diagnosis predicted a decrease in depression symptoms.

Summary of hierarchical regressions exploring whether number of group identifications predicting mental health and well-being

Across the four hierarchical regression models presented above, having a higher number of group identifications significantly predicted higher SWL, lower disordered eating symptoms, lower anxiety symptoms, and lower depression symptoms. As such, it can be concluded that number of group identifications was a significant predictor of better mental health and well-being, supporting hypothesis 6.1.

Table 6. 6. T1 Hierarchical regressions exploring whether number of group identifications predicts mental health and well-being (after controlling for age, gender, and diagnosis).

	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	B	SE	β	*B*	SE	β	*B*	SE	β	*B*	SE	β
Step 1												
Constant	3.66	.36		17..06	1.05		13.51	.91		8.73	1.00	
Age (years)	-.01	.01	-.06	-.01	.04	-.01	-.02	.03	-.04	.001	.03	.002
Gender (0/1) [a]	.52	.48	.08	**-3.16**	**1.39**	**-.17***	**-3.02**	**1.21**	**.18***	-1.22	1.32	-.07
ED Diagnosis (0/1) [b]	**.62**	**.23**	**.20****	-.85	.66	-.09	**-2.37**	**.58**	**-.29*****	**-2.54**	**.63**	**-.29*****
		(R^2 = .05*)			(R^2 = 04)			**(R^2 = .12***)**			**(R^2 = .09**)**	
Step 2												
Constant	2.49	.40		19.05	1.22		15.74	1.04		12.21	1.08	
Age (years)	-.003	.01	-.02	-.02	.04	-.04	-.03	.03	-.07	-.02	.03	-.05
Gender (0/1) [a]	.47	.44	.07	**-3.09**	**1.36**	**-.16***	**-2.94**	**1.16**	**-.17***	-1.10	1.20	-.06
ED Diagnosis (0/1) [b]	**.58**	**.21**	**.18****	-.77	.65	-.09	**-2.28**	**.56**	**-.28*****	**-2.41**	**.58**	**-.27*****
Number of group identifications (0-4)	**.54**	**.10**	**.37*****	**-.92**	**.30**	**-.22****	**-1.03**	**.26**	**-.27*****	**-1.62**	**.27**	**-.39*****
	R^2 = .19*; ΔR^2 = .14***			**R^2 = .09**; ΔR^2 = .05****			**R^2 = .20***; ΔR^2 = .07*****			**R^2 = .24***; ΔR^2 = .15*****		

Note: * p< .05; ** p< .01; *** p< .001.

[a]: 0= Female, 1= Non female

[b:] 0= ED diagnosis, 1= No ED diagnosis

6.5.4. Moderation analysis

Moderation analyses were conducted to further investigate the relationship between number of group identifications and mental health/well-being. More specifically, the analyses were conducted to explore whether this relationship was moderated by i) concealment of disordered eating from social groups, and/or ii) group compatibility (addressing hypotheses 6.2 and 6.3). As with the hierarchical regression models, age, gender, and having an ED diagnosis (or not) were included as covariates in all analyses.

Summary of Models Exploring Concealment as a Moderator on the Relationship Between Number of Group Identifications and Mental health/Well-being

Four moderation models tested the moderating effect of concealment of disordered eating from social groups on the relationship between number of group identifications and four health/well-being variables (SWL; disordered eating symptoms, anxiety symptoms, and depression symptoms). The overall model accounted for a significant amount of the variance in all outcome variables: SWL model: R^2 = .23, F(6, 177) = 8.70, p< .001; Disordered eating symptoms model: R^2 = .18, F(6, 177) = 6.61, p< .001; Anxiety symptoms model: R^2 = .22, F(6, 177) = 8.26, p< .001; and Depression symptoms model: R^2 = .26, F(6, 177) = 10.30, p< .001.

The interaction between number of group identifications and concealment of disordered eating was significant in predicting SWL: b = -.10, t(177) = -2.89, p= .004, *LLCI*= -.18, *ULCI* = -.03; Disordered eating symptoms: b = .43, t(177) = 4.04, p< .001, *LLCI*= .22, *ULCI* = .64; and Anxiety symptoms: b = .21, t(177) = 2.24, p = .03, *LLCI*= .03, *ULCI* = .40, indicating moderation for these three models. The effect sizes for these three significant moderation models show that the interaction between number of group identifications and concealment had a medium effect in explaining SWL (f^2= .13). The same interaction had a large effect in explaining disordered eating symptoms (f^2= .44), and finally this interaction had a medium effect in explaining anxiety symptoms (f^2= .27), showing a medium effect. However, there was no evidence of moderation for Depression symptoms: b = .17, t(177) = 1.72, p = .09, *LLCI*= -.02, *ULCI* = .37. To explore the significant

moderating effects further, simple slopes analyses were conducted. These showed that the relationship between number of group identifications and mental health/well-being was only significant at low levels of concealment: SWL: $t(177) = 6.15$, $p < .001$, $b = .79$; Disordered eating symptoms: $t(177) = -5.14$, $p < .001$, $b = -1.95$; and Anxiety symptoms: $t(177) = -4.48$, $p < .001$, $b = -1.52$. All statistical information for these moderation models and simple slopes graphs is provided in Appendix 8.

Overall, three moderation models (SWL; disordered eating symptoms and anxiety symptoms) showed that concealment of disordered eating from social groups moderated the relationship between number of group identifications and mental health/well-being, thus supporting hypothesis H6.2. However, there was no evidence of concealment moderating the relationship between number of group identifications and depression symptoms. These models support the initial hypothesis (6.2), evidenced by the simple slopes (Appendix 8), as the hypothesised positive relationship between number of group identifications and SWL was only observed when concealment of disordered eating was low. Again, the simple slopes show that the hypothesised negative relationship between number of group identifications and disordered eating symptoms and anxiety symptoms is only observed when concealment was low. This, therefore, supports Study 1's conclusions that concealment has an important part to play within the relationship between social identities and disordered eating recovery. These findings also support the conclusion from Study 1 that openness can be important for the relationship between social identities and disordered eating recovery.

Summary of Models Exploring Group Compatibility as a Moderator on the Relationship Between Number of Group Identifications and Mental health/Well-being

To test hypothesis 6.3 (greater group compatibility will moderate the relationship between number of group identifications and mental health/well-being), a series of moderation models were run. Group compatibility was not a significant moderator of the relationship between number

of group identifications and any of the outcome variables (SWL, disordered eating symptoms, anxiety symptoms, or depression symptoms). Hypotheses H6.3 was thus not supported.

6.5.5. Mediation analyses

Mediation analyses were conducted to investigate the hypothesis that social support will mediate the relationship between number of group identifications and mental health/well-being (H6.4). As such, four mediation models were tested controlling for age, gender, and having an ED diagnosis (or not) as with all previous analyses.

Summary of Mediation Models Exploring the Relationship Between Number of Group Identifications and Mental health/Well-being via Social Support

Number of group identifications was a significant positive predictor of social support within all four models: *b* = 2.20, *SE*= .22, *t*= 10.22, *p*< .001, *LLCI*= 1.77, *ULCI*= 2.62. Social support was in turn a significant predictor of SWL: *b* = .13, *SE*= .03, *t*= 3.82, *p*< .001, *LLCI*= .06, *ULCI*= .19; and Depression symptoms: *b* = -.39, *SE*= .09, *t*= -4.33, *p*< .001, *LLCI*= -.56, *ULCI*= -.21. Exploration of the effect sizes (standardised indirect effect) for these two significant mediation models show that number of group identifications and social support explained a medium amount of the variance in both SWL (19%) and depression symptoms (21%). However, social support did not significantly predict Disordered eating symptoms: *b* = -.02, *SE*= .11, *t*= -.16, *p*= .87, *LLCI*= -23, *ULCI*= .19; Anxiety symptoms: *b* = -.12, *SE*= .09, *t*= -1.29, *p*= .20, *LLCI*= -.29, *ULCI*= .06, thus not evidencing mediation within these two models. Only SWL and Depression symptom meditation models will be further explored. The direct relationship was significant between number of group identifications and SWL: *b* = .27, *SE*= .12, *t*= 2.23, *p*= .03, *LLCI*= .03, *ULCI*= .51; and Depression symptoms: *b* = -.77, *SE*= .32, *t*= -2.38, *p*= .02, *LLCI*= -1.41, *ULCI*= -.13. The indirect effect of number of group identifications on SWL through social support was significant: *b* = .19, *Boot SE*= .05 *Boot LLCI*= .09, *Boot ULCI*= .29. The indirect effect of number of group identifications on depression symptoms through social support was also significant: *b* = -.22, *Boot SE*= .05 *Boot LLCI*= -.31, *Boot ULCI*= -.15.

Overall, two mediation models (SWL and depression symptoms) showed that social support partially mediated the relationship between number of group identifications and mental health/well-being, thus supporting hypothesis 6.4. However, there was no evidence of social support mediating the relationship between number of group identifications and disordered eating symptoms, or anxiety symptoms. These models support the initial hypothesis (6.4), evidenced by the indirect effect of social support on the positive relationship between number of group identifications and SWL, however, as the direct effect between number of group identifications and SWL is still significant this is a partial mediation model. Again, the indirect effect of social support on the negative relationship between number of group identifications and depression symptoms show that social support does mediate this relationship as predicted, but as the direct relationship is still significant the model is a partial mediation model.

6.5.6. Moderated mediation analyses

Moderated mediation analyses were conducted to investigate whether number of group identifications positively predict social support, but only for those low in concealment of their disordered eating, then social support will predict better mental health and well-being (H6.5), this model is visually presented in Figures 6.1 and 6.2. It was also predicted that number of group identifications positively predict social support, but only for those with compatible social groups, then social support will predict better mental health and well-being. (H6.6). As such, a series of moderated mediation models were tested controlling for age, gender, and having an ED diagnosis (or not) as with all previous analyses. There was no evidence of moderated mediation within the disordered eating symptoms and anxiety models, as such only the SWL and depression moderated mediation models will be discussed.

Concealment Moderating the Mediating Effect of Number of Group Identifications on SWL via Social Support

The first model exploring whether number of group identifications positively predicts social support, but only for those low in concealment of their disordered eating, then social support will predict better SWL. The overall model accounted for a significant amount of the variance in SWL: R^2 = .25, $F(5, 178) = 11.99$, $p < .001$. The interaction between number of group identifications and concealment of disordered eating was significant in predicting social support: b = -.14, SE= .07, t= -2.00, p= .047, *LLCI*= -.29, *ULCI*= -.002), indicating that concealment of disordered eating was a significant moderator of the relationship between the number of group identifications and social support. To explore the significant moderating effect further, a simple slopes analysis was conducted. This showed a significant positive relationship between number of group identifications and social support when concealment was low (-1SD), (b = 2.48, SE= .26, t= 9.68, $p < .001$, *LLCI*= 1.98, *ULCI*= 2.99). This relationship was present (albeit weaker) when concealment was high (+1SD) (b = 1.76, SE= .28, t= 6.39, $p < .001$, *LLCI*= 1.22, *ULCI*= 2.31). The simple slopes graph for this analysis is provided in Appendix 9.

The direct relationship between number of group identifications and SWL was significantly positive (b = .27, SE= .12, t= 2.23, p= .03, *LLCI*= .03, *ULCI*= .51). The conditional indirect effect of number of group identifications on SWL through social support was significant at high levels (+1SD) of concealment of disordered eating, (b = .22, *Boot SE*= .07 *Boot LLCI*= .10, *Boot ULCI*= .36) and at low levels (-1SD) of concealment of disordered eating (b = .32, *Boot SE*= .10, *Boot LLCI*= .13, *Boot ULCI*= .51). Thus, the conditional indirect effect of number of group identifications on SWL through social support is stronger when concealment of disordered eating is low. The index of moderated mediation for concealment of disordered eating was significant (*Index* = -.02, *Boot SE*= .01, *Boot LLCI*= -.04, *Boot ULCI*= -.002). Exploration of the index of moderated mediation shows that the indirect relationship accounts for 2% of the variance in SWL.

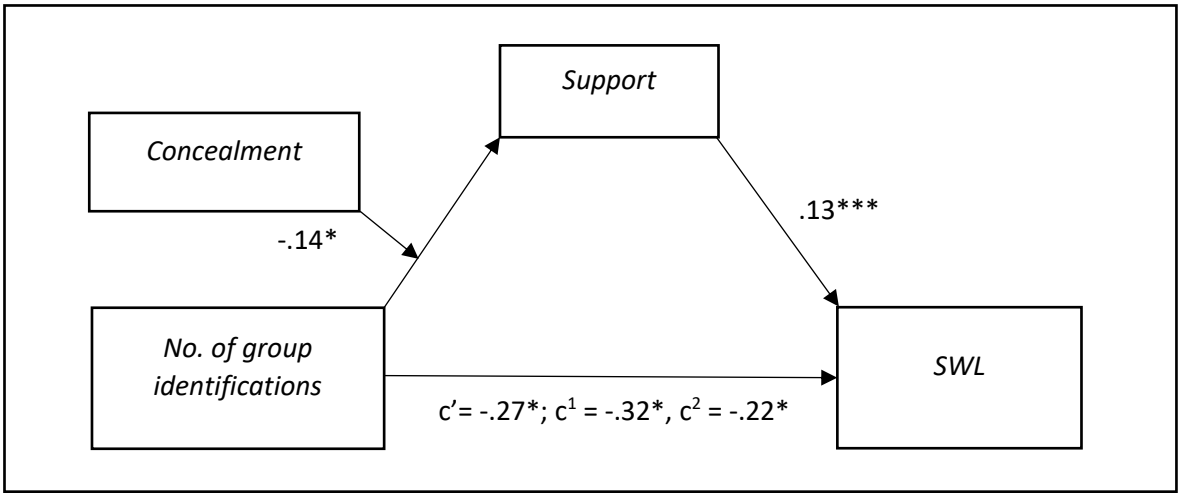

Figure 6. 1. Graphical representation of the model tested to explore the moderating effect on the mediation of on the relationship between number of group identifications and satisfaction with life.

Note: * $p < .05$; *** $p < .001$

c'= direct effect of number of group identifications on SWL

c^1 = indirect effect of number of group identifications on SWL, through social support at low levels of concealment

c^2 = indirect effect of number of group identifications on SWL, through social support at high levels concealment

Concealment Moderating the Mediating Effect of Number of Group Identifications on Depression Symptoms via Social Support

The second moderated mediation model was conducted to explore social support as a mediator of the relationship between number of group identifications and depression symptoms, with concealment again moderating the relationship between number of group identifications and social support (Figure 6.1). The overall model accounted for a significant amount of the variance in depression symptoms: $R^2 = .32$, $F(5, 178) = 16.48$, $p < .001$. The direct relationship between number of group identifications and depression symptoms was significantly negative ($b = -.77$, $SE = .32$, $t =$ -

2.38, *p*= .02, *LLCI*= -1.41, *ULCI*= -.13). The conditional indirect effect of number of group identifications on depression symptoms through social support was significant at high levels (+1SD) of concealment of disordered eating, (*b* = -.68, *Boot SE*= .17, *Boot LLCI*= -1.05, *Boot ULCI*= -.37), and at low levels (-1SD) of concealment of disordered eating (*b* = -.96, *Boot SE*= .23, *Boot LLCI*= -.96, *Boot ULCI*= -.54). Thus, the conditional indirect effect of number of group identifications on depression symptoms through social support is stronger when concealment of disordered eating is low. The index of moderated mediation for concealment of disordered eating was significant (*Index* = .06, *Boot SE*= .03, *Boot LLCI*= .001, *Boot ULCI*= .12). Exploration of the index of moderated mediation shows that the indirect relationship accounts for 6% of the variance in depression symptoms.

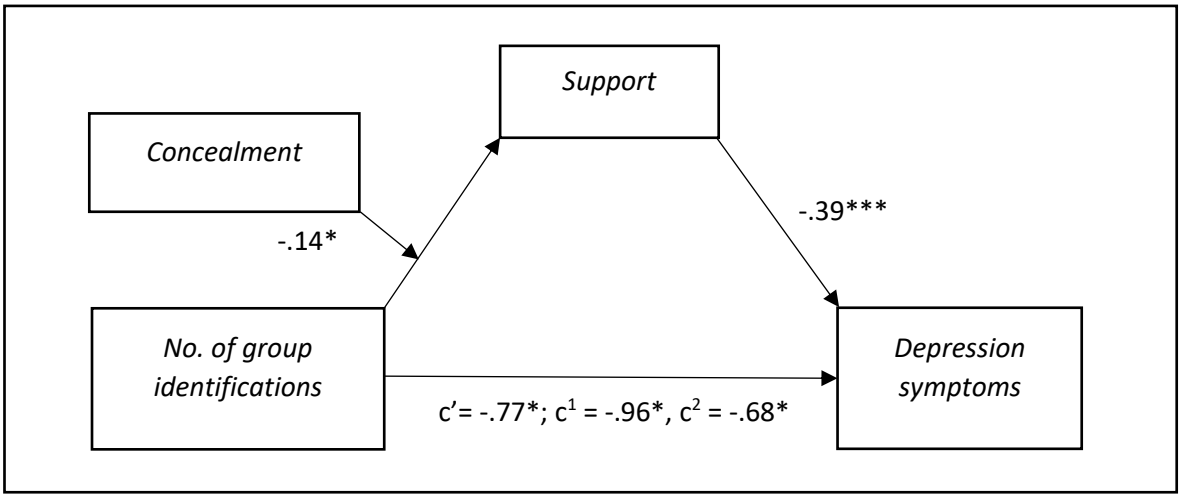

Figure 6. 2. Graphical representation of the model tested to explore the moderating effect of concealment on the mediation of social support on the relationship between number of group identifications and satisfaction with life.

Note: * *p*< .05; ** *p*< .01; *** *p*< .001

c'= direct effect of number of group identifications on depression symptoms

c^1 = indirect effect of number of group identifications on depression symptoms, through social support at low levels of concealment

c^2 = indirect effect of number of group identifications on depression symptoms, through social support at high levels of concealment

Summary: Concealment Moderating the Mediating Effect of Number of Group Identifications on Mental Health and Well-being via Social Support

Through these moderated mediation models, it was found that concealment of disordered eating again was a significant moderator, this time of the positive relationship between number of group identifications and social support. Unlike with the moderation models exploring the relationship between number of group identification and mental health/well-being (Section 6.5.4), this moderating effect was seen at both high and low levels of concealment, not supporting hypothesis 6.5 as it was predicted that only low levels of concealment would moderate the relationship between number of group identifications and mental health/well-being. Despite the relationship between number of group identifications and social support being stronger at low levels of concealment, as this is still significant at high levels of concealment it shows that both low and high levels of concealment, number of group identifications are associated positively with social support. This finding does support Study 1 conclusions that the relationship between concealment was complex with support. Nonetheless, further evidence was obtained to support the idea that the amount of support received from social group memberships is an important mediator of the relationship between number of group identifications and well-being. Although this relationship was not found when using disordered eating symptoms and anxiety symptoms as the outcome variables, these findings ultimately provide further support for hypothesis 6.5; that social support will significantly mediate the relationship between number of group identifications and mental health/well-being.

Summary: Group Compatibility Moderating the Mediating Effect of Number of Group Identifications on Mental Health and Well-being via Social Support

To test hypothesis 6.6 (that number of group identifications will predict mental health and well-being through social support, but only for participants with high group compatibility), a series of moderated mediation models were run. Group compatibility was not a significant moderator of the relationship between number of group identifications and social support, and thus there was no significant indirect relationship between number of group identifications and any of the outcome

variables (SWL, disordered eating symptoms, anxiety symptoms, or depression symptoms) via social support. Hypotheses 6.6 was thus not supported.

6.5.7. Study 2a: Conclusions

The main aim of this cross-sectional analysis was to investigate the relationship between identification with four social groups (family, friends, a group used for support with disordered eating, and others in disordered eating recovery) and mental health/well-being. It was expected that number of group identifications would have a positive relationship with SWL, whilst having a negative relationship with disordered eating symptoms, anxiety symptoms, and depression symptoms (hypothesis 6.1). Through this cross-sectional analysis this main hypothesis was supported: number of group identifications was associated with better mental health and well-being, supporting previous research conclusions that a greater number of group identifications is associated with better mental health and well-being (Sani et al., 2015a; Sani et al., 2015b; Steffens et al., 2016; Wakefield et al., 2017). Identifying with multiple groups provides group members with a stronger sense of meaning and belonging that can aid throughout times of stress, thereby protecting health and well-being (Haslam et al., 2008). Additionally, this finding provides initial evidence of the relationship between multiple group memberships and mental health/well-being occurring in people seeking disordered eating recovery. This is important, as little is known about the relationship between number of group identifications and mental health/ well-being for people with disordered eating concerns (Cruwys et al., 2016). However, as identification with groups is thought to provide group members with social resources (e.g., social support; Haslam et al., 2005), it has been argued that social support mediates the relationship between number of group identifications and mental health/well-being and needed to be explored (Wakefield et al., 2017).

These current findings support previous conclusions that number of group memberships are important for mental health and well-being (Iyer et al., 2009), they also support research indicating that social support is an important mediator of the relationship between group identification and

mental health (e.g., Haslam et al., 2005). Within this analysis, the support received from the three social groups (family; friends, and a group used for support) had a significant mediating effect on the relationship between number of group identifications and SWL/depression symptoms. Suggesting that the support received from fellow group members is an important process through which number of group identifications predicts mental health/well-being, as reported in previous research (Haslam, Cruwys, Haslam, Dingle, & Chang, 2016). However, this significant role of social support within this cross-sectional analysis was moderated by concealment of disordered eating, thus supporting claims from Study 1 that social support and concealment of disordered eating are interlinked within disordered eating recovery. Concealment of disordered eating from social groups had a complex relationship with number of group identifications and social support (as the relationship between number of group identifications and social support was significant at both high and low levels of concealment, but stronger at low levels). This provides further evidence of the interlinked relationship between concealment and support for people seeking disordered eating recovery, supporting Study 1's conclusions. Arguably, openness regarding disordered eating is an important prerequisite for the existence of a positive relationship between number of group identifications and mental health/well-being.

Due to the findings from Study 1, it was thought that concealment of disordered eating could also impact this relationship alone and should be investigated. As was predicted the relationship between number of group identifications and mental health/well-being was moderated by concealment. Concealment was identified as a complex concept in Study 1 as both concealing and disclosing one's disordered eating to others had potential positive and negative consequences. However, within Study 2a, the relationships between number of group identifications and, SWL, disordered eating symptoms, and anxiety symptoms, were only significant when concealment was low. These findings do support previous conclusions that being open about disordered eating is important for recovery (Bowlby et al., 2015), however, the conclusion from Study 1 that concealment is complex is not fully supported. As concealment was more complicated when explored in the moderated mediations, and only significant at low levels as a moderator alone,

further work is needed to explore the nature of concealment for people seeking disordered eating recovery.

As with concealment, group compatibility was of interest within this cross-sectional analysis. Group compatibility reportedly influences how number of group identifications can impact well-being (Cruwys et al., 2016; Iyer et al., 2009). However, within Study 2as, group compatibility was not found to significantly moderate any of the relationships explored. While unexpected, it could be that group compatibility within this sample is not important. As highlighted within Study 1, even when there were issues with compatibility between social groups, participants reported being happy with their social identity networks. As such, it could be argued that group incompatibilities are not a concern or are easily managed by those in or seeking disordered eating recovery.

To conclude, this analysis provides a novel exploration of the relationship between number of group identifications and mental health/well-being for people seeking disordered eating recovery. It is one of the first studies to explore the role played by number of group identifications during recovery from disordered eating, and therefore the findings provide initial insights into how social identities could interact with the well-being of people with disordered eating concerns. One of the most notable findings was the moderating role of concealment of disordered eating, a finding that provided support for the conclusions of Study 1 (that concealment must be low for number of group identifications to have a positive relationship with mental health and well-being in people seeking disordered eating recovery). Study 2a provides initial evidence for how social identities predict the mental health and well-being of people seeking disordered eating recovery, (e.g., through social support and concealment of disordered eating from groups). Again, the current findings support previous research that highlights the important role played by social support in the relationship between group identification and well-being (Haslam et al., 2005; Steffens et al., 2016; Wakefield et al., 2017). This cross-sectional analysis has thus supported a variety of core concepts of the Social Cure perspective (e.g., that holding multiple group identifications is associated with better health and well-being and that social support mediates this relationship; Haslam et al., 2018), but has done so in the context of disordered eating recovery: a context where little Social

Cure research has taken place. As such, these current findings not only support the Social Cure perspective, but they also expand its relevance by providing a new insight into the role played by group identifications in predicting the health/well-being of people with disordered eating concerns.

7. Study 2b: Longitudinal Exploration of Social Group Identifications and Mental Health/Well-Being for Those Seeking Disordered Eating Recovery

7.1. Chapter overview

The previous chapter continued to develop an understanding of the relationship between number of group identifications and mental health/well-being for people with disordered eating concerns. Study 2a illustrated through the cross-sectional analysis that number of group identifications was positively associated with satisfaction with life, and negatively associated with disordered eating symptoms, anxiety symptoms and depression symptoms. However, the most notable conclusions were that low levels of concealment of disordered eating moderated the positive relationship between number of group identifications and SWL, and the negative relationship number of group identifications had with disordered eating symptoms, and anxiety symptoms. Additionally, the positive relationship between number of group identifications and SWL was mediated by social support, while the negative relationship between number of group identifications and depression symptoms was also mediated by social support. The final finding to note from Study 2a was that concealment (high and low levels) moderated the positive relationship between number of group identifications and social support, while social support mediated the relationship between number of group identifications and SWL/depression symptoms. Thus, supporting Study 1 conclusions that social support and concealment are not only important considerations within disordered eating recovery, but that they are intertwined. To continue developing the knowledge about the intertwined nature of social support and concealment of disordered eating from social groups, this chapter will present Study 2b, a longitudinal exploration of the moderating effect of concealment and the mediating effect of social support on the relationship between number of group identifications and mental health/well-being. This longitudinal analysis of Study 2 utilises two time points: the first survey (T1) and a second survey

(T2) completed by participants 6 months after the T1 survey. Specifically, this chapter aimed to investigate: i) the temporal relationships between number of group identifications and mental health/well-being (and the extent to which these relationships are moderated by concealment and group compatibility, and mediated by social support), and ii) changes in participants' number of group identifications over time, and the implications for mental health/well-being (as well as whether this relationship is moderated by concealment and group compatibility, and mediated by social support).

An additional interest within Study 2b was whether an increase in identification with others in disordered eating recovery is associated with better mental health/well-being. As discussed in Chapter 2, developing, and maintaining an identity with others who are seeking recovery is not only beneficial for recovery, but also for health and well-being (Bathish et al., 2017; Best, Beckwith et al., 2016; Cruwys et al., 2020; Dingle et al., 2015; Dingle et al., 2019). Researchers believe that a recovery identity can aid disordered eating recovery (Hastings et al., 2016; McNamara & Parsons, 2016). This chapter will also explore the changes in participants' identification with others in disordered eating recovery over time, and the implications of this for their mental health/well-being (as well as whether this relationship is moderated by concealment and group compatibility and mediated by social support). First this chapter will present the longitudinal aims and hypotheses, then the longitudinal findings will be presented within five sections: descriptive statistics and correlations (Section 7.4.3); hierarchical regressions (Section 7.4.4); moderation analyses (Section 7.4.5); mediation analyses (Section 7.4.6) and moderated mediation analyses (Section 7.4.6). Finally, the conclusions from this longitudinal component (Study 2b) will be discussed before discussing the overall Study 2 findings.

12.2. Study 2b: Aims and hypotheses

Hypothesis exploring the temporal relationship between T1 number of group identifications and T2 mental health/well-being (and the extent to which these relationships are moderated by concealment and group compatibility, and mediated by social support):

To build on the Study 2a cross-sectional findings, the main aim of this Study 2b longitudinal analysis was to investigate the temporal relationships between number of group identifications (out of possible four: family, friends, a group used for support with disordered eating, and identification with others in disordered eating recovery) and mental health/well-being (thesis objective 3). Consistent with Social Cure and Study 2a, it was expected that more group identifications would predict better mental health and well-being outcomes over time (Miller et al., 2017). As such, after controlling for the baseline of each mental health and well-being variable from T1, it is hypothesised that:

H7.1. T1 Number of group identifications will have a positive relationship with T2 well-being, but a negative relationship with T2 mental health. More specifically, T1 number of group identifications will have a positive relationship with T2 SWL but a negative relationship with T2 disordered eating symptoms, T2 anxiety symptoms, and T2 depression symptoms.

Exploring T1 concealment as a moderator on the temporal relationship between T1 number of group identifications and T2 mental health/well-being:

As with Study 2a, it was thought that this positive temporal relationship between T1 number of group identifications and T2 mental health/well-being would not occur equally for all participants. As such, it was predicted that the temporal relationship between T1 number of group identifications and T2 mental health/well-being would be stronger for participants who felt able to disclose their disordered eating to their T1 social groups (versus participants who felt that they are not able to disclose their disordered eating to their social groups):

H7.2. T1 Concealment of disordered eating from social groups will moderate the relationship between T1 number of group identifications and T2 mental health/well-being, so that more T1 group identifications held will predict better T2 mental health/well-being, but only for participants who are low in T1 disordered eating concealment (not for those who are high in disordered eating concealment).

Exploring T1 group compatibility as a moderator on the temporal relationship between T1 number of group identifications and T2 mental health/well-being:

Contrary to predictions, group compatibility was not a significant moderator in Study 2a. However, it was still considered important to explore in Study 2b as previous Social Cure research has suggested that high group compatibility over time can protect health and well-being (Iyer et al., 2009). It was predicted that the temporal relationship between T2 number of group identifications and T2 mental health/well-being would be stronger for participants who perceive their T1 groups to be compatible (versus participants who believe their social groups to be incompatible):

H7.3. T1 Group compatibility will moderate the relationship between T1 number of group identifications and T2 mental health/well-being. So, more T1 group identifications held will predict better T2 mental health/well-being, but only for participants who perceive their T1 social groups to be compatible (not for participants who believe their groups are incompatible).

Exploring T2 social support as a mediator on the temporal relationship between T1 number of group identifications and T2 mental health/well-being:

Social Cure research shows that social groups provide group members with social support that is beneficial for their health and well-being (Haslam et al., 2005). This was supported by Study 2a findings. As such, another aim of Study 2b was to explore whether social support mediated the

temporal relationship between number of group identifications and mental health/well-being. As such it was predicted that:

H7.4. T2 Social support will mediate the relationship between T1 number of group identifications held and T2 mental health/well-being. So, more T1 group identifications held will predict higher T2 social support, which in turn will predict higher T2 SWL, lower T2 disordered eating symptoms, T2 lower anxiety symptoms, and lower T2 depression symptoms.

Exploring T1 concealment as a moderator and T2 social support as a mediator on the temporal relationship between T1 number of group identifications and T2 mental health/well-being:

Study 2a found that concealment of disordered eating from social groups significantly moderated the relationship between number of group identifications and social support. However, this moderation occurred at both high and low levels (but the relationship was stronger at low levels of concealment). As such, it could be argued that further work is needed to fully unpack these previous findings and establish a comprehensive understanding regarding concealment for participants' seeking disordered eating recovery. It was predicted that the temporal relationship between T1 number of group identifications held and T2 health/well-being through T2 social support will be stronger for participants who feel able to disclose their disordered eating to their T1 social groups (as opposed to participants who do not feel they are able to disclose their disordered eating to their social groups):

H7.5. T1 concealment will moderate the indirect effect of T1 number of group identifications on T2 mental health/well-being via T2 social support. More specifically, it is predicted that T1 number of group identifications will positively predict T2 social support, but only for those low in T1 concealment of their disordered eating, then T2 social support will predict better mental health and well-being at T2.

Exploring T1 group compatibility as a moderator and T2 social support as a mediator on the temporal relationship between T1 number of group identifications and T2 mental health/well-being:

Study 2a did not find that group compatibility moderated the relationship between number of group identifications and social support. However, Social Cure literature states that group compatibility can be a beneficial during a transition (Iyer et al., 2009), therefore, exploring the moderating effect of group compatibility over time could provide greater insight into the importance of group compatibility. It was predicted that the temporal relationship between T1 number of group identifications and T2 mental health/well-being through T2 social support will be stronger for participants who believed their groups to be compatible (as opposed to participants who believe their groups are incompatible) at T1:

H7.6. T1 group compatibility will moderate the indirect effect of T1 number of group identifications on T2 mental health/well-being via T2 social support. More specifically, it is predicted that T1 number of group identifications will positively predict T2 social support, but only for those with compatible T1 social groups, then T2 social support will predict better mental health and well-being at T2.

Exploring changes in participants' number of group identifications over time, and the implications of this for their T2 mental health/well-being (as well as whether this relationship is moderated by T1 concealment and T1 group compatibility, and mediated by T2 social support):

In addition to exploring the relationship between T1 number of group identifications and T2 mental health/well-being, the change in number of group identifications between T1 and T2 was of interest (to address thesis objective 3). As discussed within Study 1, participants reported that their social groups had not only changed throughout their life with their disordered eating, but also within their recovery. Most group memberships discussed within Study 1, were maintained throughout recovery, it was often the significance of each group that changed as the person sought

recovery (e.g., becoming more or less important). Additionally, group memberships that the person possessed when the disordered eating developed were not necessarily maintained into recovery, and new group memberships were formed throughout recovery, highlighting social identity changes for people seeking disordered eating recovery. Therefore, the relationship between change in number of group memberships and mental health/well-being will be explored. It was hypothesised that:

H7.7. An increase in number of group identifications over time (the increase in number of group identifications between T1 and T2) will be associated with better T2 mental health/well-being (higher SWL, lower disordered eating symptoms, lower anxiety symptoms and lower depression symptoms).

Exploring T1 moderators on the relationship between changes in participants' number of group identifications over time, and the implications of this for their T2 mental health/well-being:

As discussed above, the relationship between number of group identifications and mental health/well-being can be moderated by concealment of disordered eating and group compatibility, respectively. As such, it is expected that not everyone will experience better mental health and well-being due to an increase in their group identification between T1 and T2. It is therefore hypothesised that:

H7.8. T1 Concealment of disordered eating from social groups will moderate the relationship between change in number of group identifications between T1 and T2 and T2 mental health/well-being. Thus, an increase in number of group identifications between T1 and T2 will predict better T2 mental health/well-being, but only for those low in their T1 concealment of their disordered eating.

H7.9. T1 group compatibility will moderate the relationship between change in number group identifications between T1 and T2 and mental health/well-being. An increase in number group identifications between T1 and T2 will predict better T2 mental health/well-being, but only for those with high T1 group compatibility.

Exploring T2 social support as a mediator on the relationship between changes in participants' number of group identifications over time, and the implications of this for their T2 mental health/well-being:

Again, as highlighted above and in Study 2a, the relationship between group identifications and mental health/well-being can be mediated by social support. As such, it was predicted that changes in participants' multiple group identifications over time would predict health/well-being at T2 through T2 social support:

H7.10. Social support will mediate the relationship between change in number group identifications between T1 and T2 and T2 mental health/well-being. More specifically, an increase in number of group identifications between T1 and T2 will predict higher T2 social support, which in turn will predict higher T2 SWL, lower T2 disordered eating symptoms, lower T2 anxiety symptoms, and T2 lower depression symptoms.

Exploring T1 concealment as a moderator and T2 social support as a mediator on the relationship between change in participants' number of group identifications over time and T2 mental health/well-being:

Due to the complex relationship between disclosure/concealment and social support throughout Study 1 and Study 2a, further work is needed to unpack the previous conclusions that disclosure/concealment and social support are intertwined. Following Study 2a findings, it was expected that concealment would again moderate the relationship between change in number of group identifications and social support, which would then mediate the relationship between number of group identifications and mental health/well-being. Through exploring this model with the moderation between change in number of group identifications and social support, it could provide greater understanding of the relationship between concealment and support as initially established in Study 1. More specifically, it was predicted that:

H7.11. T1 concealment will moderate the indirect effect of change in number of identifications over time on T2 mental health/well-being via T2 social support. More specifically, it is predicted that an increase in number of group identifications between T1 and T2 will predict mental health and well-being at T2 through T2 social support, but only for participants who are low in T1 disordered eating concealment (not for those who are high in disordered eating concealment).

Exploring T1 group compatibility as a moderator and T2 social support as a mediator on the relationship between change in participants' number of group identifications over time and T2 mental health/well-being:

As mentioned above, Study 2a did not reveal any significant relationships involving group compatibility, including the relationships between number of group identifications, group compatibility, social support, and mental health/well-being. However, utilising group compatibility to investigate the relationship between changes in number of group identifications and mental health/well-being could capture whether the compatibility of social groups is important for people seeking disordered eating recovery. As such, it is predicted that:

H7.12. T1 group compatibility will moderate the indirect effect of change in number of identifications over time on T2 mental health/well-being via social support. More specifically, it is predicted that an increase number of group identifications between T1 and T2 will predict T2 mental health/well-being through T2 social support, but only when T1 social group are perceived as being compatible (not when social groups are perceived as being incompatible).

Exploring changes in participants' identification with others in disordered eating recovery over time, and the implications of this for their T2 mental health/well-being (as well as whether this relationship is moderated by T1 concealment and T1 group compatibility, and mediated by T2 social support):

As highlighted within Chapter 2, previous Social Cure research has identified that developing and maintaining identification with recovery-orientated groups is important for addiction recovery efforts (outlined in SIMOR; Best, Beckwith et al., 2016). This reportedly occurs through developing and maintaining a recovery-based identity, which is not only beneficial for recovery, but also aids health and well-being (Bathish et al., 2017; Best, Beckwith et al., 2016; Cruwys et al., 2020; Dingle et al., 2015; Dingle et al., 2019). Researchers believe a recovery identity can aid disordered eating recovery (Hastings et al., 2016; McNamara & Parsons, 2016; Riley et al., 2009). However, little else is known regarding identification with others in disordered eating recovery. As such, this analysis will explore how changes in identification with others in disordered eating recovery can impact the mental health/well-being of people seeking disordered eating recovery, to provide an initial understanding of the relationship between disordered eating recovery and recovery identification[4]. For the investigation of the relationship between changes in identification with others in disordered eating recovery over time (this predictor variable will now be referred to as changes in recovery identification) and T2 mental health/well-being it was predicted that:

H7.13. An increase in recovery identification between T1 and T2 will have a positive relationship with T2 mental health/well-being. More specifically, an increase in recovery identification over time will have a positive relationship with T2 SWL but have a negative relationship with T2 disordered eating symptoms, T2 anxiety symptoms, and T2 depression symptoms.

[4] As change in identification with others in disordered eating recovery was the primary interest within Study 2, the cross-sectional analysis of the relationship between identification with others in disordered eating recovery and mental health/well-being was explored. However, as these were non-significant and secondary to the researcher's interest these were not presented as part of Study 2a.

Exploring T1 moderators on the relationship between participants' increased recovery identification over time and T2 mental health/well-being:

The same relationship as predicted in previous hypotheses is predicted to also be experienced between a change in recovery identification over time and T2 mental health/well-being. As such, it is expected that the relationship between increased recovery identification over time and T2 mental health/well-being will be moderated by T1 concealment of disordered eating and T1 group compatibility, respectively. It is therefore hypothesised that:

H7.14. T1 Concealment of disordered eating from social groups will moderate the relationship between change in recovery identification over time and T2 mental health/well-being over time. More specifically, an increase in recovery identification between T1 and T2 will be associated with higher T2 SWL, lower T2 disordered eating symptoms, lower T2 anxiety symptoms and lower T2 depression symptoms, but only for participants low in T1 disordered eating concealment (not for those high in disordered eating concealment).

H7.15. T1 group compatibility will moderate the relationship between change in recovery identification, mental health, and well-being. Thus, an increase in recovery identification between T1 and T2 will predict higher T2 SWL, lower T2 disordered eating symptoms, lower T2 anxiety symptoms and lower T2 depression symptoms, but only for participants who perceive their T1 social groups are compatible (not for participants who believe their groups are incompatible).

Exploring T2 social support as a mediator on the relationship between participants' change in recovery identification over time and T2 mental health/well-being over time:

Again, it is expected that the relationship between change in recovery identification over time and T2 mental health/well-being will be mediated by T2 social support, as with previous hypotheses. More specifically it is hypothesised that:

H7.16. T2 social support will mediate the relationship between change in recovery identification over time and T2 mental health/well-being over time. More specifically, an increase in recovery identification between T1 and T2 will predict higher T2 social support, which in turn will predict higher T2 SWL, lower T2 disordered eating symptoms, lower T2 anxiety symptoms and lower T2 depression symptoms.

Exploring T1 concealment as a moderator and T2 social support as a mediator on the relationship between change in participants' recovery identification over time and T2 mental health/well-being:

As identification with others in recovery is reportedly a key element of recovery (Best, Beckwith et al., 2016), further exploring the role that both concealment and social support (both are important in the involvement of social groups in disordered eating recovery) could develop the understanding of this important interaction for people seeking disordered eating recovery. As such, it was expected that concealment would moderate the relationship between change in recovery identification over time and social support, which would then mediate the relationship between recovery identification and mental health/well-being. More specifically, it was predicted that:

H7.17. T1 concealment will moderate the indirect effect of change in recovery identification over time on T2 mental health/well-being via social support. More specifically, it is predicted that increased recovery identification between T1 and T2 will positively predict T2 social support, but only for those low in T1 concealment of their disordered eating, then T2 social support will predict better T2 mental health and well-being.

Exploring T1 group compatibility as a moderator and T2 social support as a mediator on the temporal relationship between change in recovery identification over time and T2 mental health/well-being:

Finally, despite Study 2a showing that group compatibility was not a significant moderator on any of the relationships between group identifications, social support and mental health/well-being, utilising group compatibility to investigate the relationship between changes in number of group identifications and mental health/well-being could capture whether the compatibility of social groups is important or people seeking disordered eating recovery. As such, it is predicted that:

H7.18. T1 group compatibility will moderate the indirect effect of increased recovery identification over time on T2 mental health/well-being via T2 social support. More specifically, it is predicted that increased recovery identification between T1 and T2 will positively predict T2 social support, but only for those with T1 compatible social groups, then T2 social support will predict better T2 mental health and well-being.

7.3. Study 2b information

As one of the main objectives of this thesis was to explore the role of social identities over time for people seeking disordered eating recovery (objective 3), it was essential to utilise a longitudinal design. Longitudinal studies are commonly employed by Social Cure researchers when investigating social identities over time (Beckwith et al., 2015; Best, Haslam et al., 2016; Dingle et al., 2015; Kellezi et al., 2019; Miller et al., 2017; Steffens et al., 2016; Wakefield et al., 2017; Wakefield et al., 2020). To date there have been no longitudinal studies exploring the relationship between social identities and disordered eating, however, longitudinal studies have been used to explore disordered eating recovery (Bardone-Cone et al., 2019; Franko et al., 2017; Hesse-Biber, Marino, & Watts-Roy, 1999; Schaumberg et al., 2019; Stice, Marti, Shaw, & Jaconis, 2009).

The longitudinal studies in Social Cure literature employ various time between data collection time points (two-week intervals: Dingle et al., 2015, 6 months: Best, Haslam et al., 2016; Dingle et al., 2015, 4 months: Kellezi et al., 2019, 11 months: Miller et al., 2017, 12 months: Best, Haslam et al., 2016; Wakefield et al., 2020, 2-year intervals: Steffens et al., 2016). The time points utilised

within Social Cure research vary due to the research topic and/or the target population. As such, there is no recommended time frame that should be used between data collection points, researchers should be guided by their research interest and population. Research exploring disordered eating recovery has yet to yield a definitive timeframe in which disordered eating remission and recovery are achieved (Wade & Lock, 2019). However, there is a commonly suggested 3-month remission period and a frequently used 12-month recovery period criterion (for a review, see Bardone-Cone et al., 2018). As such, a six-month gap between T1 and T2 was selected due to it being the mid-way between the suggested remission and recovery definitions, and due to previous disordered eating studies having utilised this timeframe (Sala & Levinson, 2016; Troop, Andrews, Hiskey, & Treasure, 2014).

7.3.1. Sample attrition data

From the 185 participants that completed T1 survey and the final 99 participants that completed both the T1 and T2 survey there was an overall attrition rate of 46.49%. Of the 156 participants from T1 that requested to be contacted with the T2 survey and those 99 that did complete the T2 survey there was a 35.54% attrition rate. Within disordered eating research, attrition is a common occurrence (Neeren, Butryn, Lowe, O'Planick, Bunnell, & Ice, 2010). Attrition rates for longitudinal disordered eating studies involving a six-month gap between time points ranges between 20% (Troop, Andrews, Hiskey, & Treasure, 2014) and 36.7% (Sala & Levinson, 2016). Thus, the attrition rate within Study 2 is comparable with the top-end of this continuum. Attrition is a regular occurrence within longitudinal research and was therefore expected within this study. It is worth exploring the T1 characteristics of those who completed the T2 survey (responders at T2) and those who requested to be contacted for T2 but who did not complete the T2 survey (non-responders at T2), in order to investigate the risks of bias within the longitudinal analysis. To explore any significant differences between responders and non-responders at T2, independent samples *t*-tests were conducted. As 10 *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of $p < .005$ (i.e., .05/10) was utilised. Exploration of the Levene's test for equality of

variances was not significant for the main variables highlighted in Table 7.1. There were no significant differences between non-responders at T2 and responders at T2 in relation to: age $t(154) = -.98$, $p = .33$; number of group identifications $t(154) = .26$, $p = .80$; recovery identity $t(154) = 1.21$, $p = .27$; social support $t(153) = .14$, $p = .89$; concealment of disordered eating $t(153) = -.05$, $p = .96$; group compatibility $t(153) = -.98$, $p = .45$; SWL $t(154) = .80$, $p = .42$; disordered eating symptoms $t(154) = .29$, $p = .78$; anxiety symptoms $t(154) = -.97$, $p = .33$ and depression symptoms $t(154) = -.71$, $p = .48$. Despite these not being significant, the effect sizes were still explored. A small effect size was found between non-responders at T2 and responders at T2 for the following variables: age ($\eta^2 = .01$); recovery identity ($\eta^2 = .01$); group compatibility ($\eta^2 = .01$); SWL ($\eta^2 = .004$); anxiety symptoms ($\eta^2 = .01$); and depression symptoms ($\eta^2 = .003$). Finally, a large effect was found between non-responders at T2 and responders at T2 for the following variables: number of group identifications ($\eta^2 = 4.42$); social support ($\eta^2 = 1.28$); concealment of disordered eating ($\eta^2 = 1.63$); and disordered eating symptoms ($\eta^2 = 5.49$). This indicated that T2 responders and non-responders did not differ on these T1 central criteria.

Table 7. 1. Means and standard deviations for main variables at T1 for responders and non-responders at T2

T1 variable	Non-responders at T2	Responders at T2
Mean age (*SD)*	25.41 (9.29)	27.27 (9.16)
Mean number of group identifications (*SD)*	1.65 (1.02)	1.58 (1.07)
Mean social support (*SD*)	9.43 (4.13)	8.98 (3.74)
Mean concealment of disordered eating (*SD*)	6.93 (2.80)	6.85 (2.69)
Mean recovery identification (*SD)*	4.54 (1.46)	4.78 (1.41)
Mean group compatibility (*SD)*	4.69 (1.19)	4.63 (1.21)

Mean satisfaction with life (*SD)*	3.87 (1.48)	3.50 (1.62)
Mean disordered eating symptoms (*SD)*	16.00 (4.72)	16.67 (4.29)
Mean anxiety symptoms (*SD)*	11.21 (4.06)	12.45 (4.05)
Mean depression symptoms (*SD*)	6.89 (4.41)	8.16 (4.29)

A chi-square test revealed no association between T2 completion/non-completion and gender, $\chi^2(1) = 1.47$, $p = .23$, *phi*= -.09 (small effect). However, there was a significant association between T2 completion/non-completion and whether the participant had an ED diagnosis, $\chi 2(4) = 17.99$, $p < .001$, *phi*= -.31 (medium effect). As shown in Table 7.2, participants were more likely to respond at T2 if they had an ED diagnosis. This could therefore impact on any analyses including the diagnosis variable. Due to this, the diagnosis variable (alongside both gender and age) will again be used as control variables in all the following analyses.

Table 7. 2. Frequencies for main categorical variables for responders and non-responders at T2

T1 variable	Non-responders at T2	Responders at T2
Gender (Non-female)	7	4
Gender (Females)	78	96
Having an ED diagnosis	34	71
Not having an ED diagnosis	51	29

7.3.2. Study 2b: measures information

As exploring change in number of group identifications between T1 and T2 and change in recovery identification between T1 and T2, it is important to establish how these two variables are

created: by subtracting the T1 version of the variable from the T2 version. Between T1 and T2, 4 participants lost 2 groups, 16 participants lost one group, 40 participants reported no change in their groups, 30 participants gained one group, and 9 gained two groups, showing that 20% of the sample lost at least one group, 39% gained at least one group while the largest percentage of participants groups remained the same (40%).

It was also important to explore the relationship between the T1 and T2 versions of the core variables. As such, intraclass correlations were conducted. Family identification had a large correlation (r= .89, p< .001); friend identification also had a large correlation (r= .66, p< .001); a group used for support identification had a small correlation (r= -.01, p= .51); recovery identification had a large correlation (r= .66, p< .001). Family support had a large correlation (r= .88, p< .001); friend support had a large correlation (r= .66, p< .001); group used for support, support had a small correlation (r= -.19, p= .86). Group compatibility had a medium correlation (r= .55, p< .001); SWL had a large correlation (r= .88, p< .001); disordered eating symptoms had a large correlation (r= .60, p< .001); anxiety symptoms had a large correlation (r= .77, p< .001); depression symptoms had a large correlation (r= .80, p< .001). Through these intraclass correlation coefficients there are no issues regarding the consistency between the T1 and T2 versions of each variable, except for the variable exploring identification with a group used for support.

7.4. Study 2b: Results

7.4.1. Study 2b: Analysis overview

To investigate the hypotheses stated in section 7.3, a series of cross-sectional analyses were conducted. Hypotheses 7.1; 7.7; and 7.13 were explored through the cross-sectional descriptive statistics, correlations, and hierarchical multiple regressions. Four regression models tested the relationship between two predictor variables (T1 number of group identifications and change in number of group identifications between T1 and T2) and each of the mental health/well-being variables at T2 (SWL; disordered eating symptoms, anxiety symptoms, and depression symptoms).

Another four regression models explored the relationship between change in recovery identification between T1 and T2 and the mental health/well-being variables at T2. Moderation analyses were employed to test hypotheses 7.2; 7.3; 7.8; 7.9; 7.14; 7.15. Then, mediation analyses tested hypotheses 7.4; 7.10; 7.16. Finally, moderated mediation analyses were utilised to test hypotheses 7.5; 7.6; 7.11; 7.12; 7.17; 7.18.

7.4.2. Repeated Measures *t*-tests

Before conducting the partial correlations for the main Study 2b variables, the reliability of these longitudinal measures was explored. Presented in Section 7.3.2 the intraclass correlation coefficients for these core variables highlighted that there were no concerns regarding the consistency of the T1 and T2 variables utilised throughout this longitudinal study. To further investigate the T1 and T2 variables, the mean differences between each variable at T1 and T2 were explored using a series of repeated measure *t*-tests. As nine *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of $p < .006$ (i.e., .05/9) was utilised. The only significant change between T1 and T2 was for SWL, which significantly increased between T1 ($M = 3.52$, $SD = 1.60$) and T2 ($M = 3.82$, $SD = 1.56$, $t(98) = -2.85$, $p = .005$). There was no significant differences for the other core variables, please refer to Appendix 10 for statistical information on these repeated measures *t*-tests. Through these *t*-tests it can be argued that the only significant difference between T1 and T2 for these main variables is for SWL.

7.4.3. Descriptive statistics and correlations

Table 7.3 shows the means and standard deviations for the main variables used in the longitudinal analyses, along with the partial correlations (controlling for age, gender, ED diagnosis, and baseline of all variables of interest). The correlations exploring T1 number of group identifications with the other variables will be presented first, followed by the change in number of group identifications over time and finally the change in recovery identification over time.

T1 number of group identifications Longitudinal Partial Correlations

T1 number of group identifications had a medium negative association with concealment of disordered eating at T1 (r_p = -.36, p= .001). However, T1 number of group identifications did not significantly correlate with any of the outcome variables at T2, thus not supporting hypothesis 7.1. Despite the lack of significant correlations between T1 number of group identifications and the outcome variables, researchers have suggested that lack of correlation between variables do not preclude the exploration of mediation and moderation analyses (Hayes, 2017). Therefore, using T1 number of group identifications within mediation/moderation analyses is still appropriate.

Change in Number of Group Identifications Over Time Partial Correlations

Supporting hypothesis 7.7, the change in number of group identifications between T1 and T2 had a medium positive relationship with T2 SWL (r_p = .35, p= .001), a medium negative relationship with T2 depression symptoms (r_p = -.32, p= .003), a small negative relationship with T2 disordered eating symptoms (r_p = -.26, p= .01), and anxiety symptoms (r_p = -.23, p= .03). Additionally, change in number of group identifications between T1 and T2 had a medium positive relationship with T2 social support (r_p = .42, p< .001). These show that an increase in number of group identifications between T1 and T2 is associated with increased T2 SWL, T2 social support, and decreased T2 disordered eating symptoms, T2 anxiety symptoms, and T2 depressions symptoms. Due to these significant correlations the relationship between change in number of group identifications over time, mental health and well-being will be explored further through moderations and mediations (presented later in this chapter).

Change in Recovery Identification Over Time Partial Correlations

Change in recovery identification between T1 and T2 had a small positive association with T2 SWL (r_p = .27, p= .01), partially supporting 7.13. However, change in recovery identification

between T1 and T2 did not significantly correlate with the T2 mental health variables, thus not fully supporting hypothesis 7.13. Change in recovery identification between T1 and T2 did have a small positive relationship with T2 social support (r= .24, p= .03). Despite the lack of significant correlations between change in recovery identification over time and the T2 mental health variables, these relationships will be explored further due to correlations between variables not precluding the exploration of mediation and moderation analyses (Hayes, 2017).

Table 7. 3. Descriptive statistics (possible ranges, means, standard deviations) and partial correlations for the T2 main variables

Variable	1	2	3	4	5	6	7	8	9	10
1. T1 Number of group identifications (0-4; *M*=1.60; *SD*=1.07)	-									
2. Change in number of group identifications over time [a] (-2- +2; *M*= .24; *SD*= .97)	**-.38*** **	-								
3. Change in recovery identification [b] (-3- 5.25; *M*= .10; *SD*= 1.34)	**-.29** **	**.48*** **	-							
4. T2 Social support (1-19.50; *M*=9.49; *SD*= 3.83)	.15	**.42*** **	**.24***	-						
5. T1 Concealment of disordered eating (0-14; *M*= 6.93; *SD*= 2.64)	**-.36** **	.14	.15	-.14	-					
6. T1 Group compatibility (1.25-7; *M*= 4.93; *SD*= 1.22)	.20	-.13	-.05	.12	-.17	-				
7. T2 Satisfaction with life (1-7; *M*=3.82; *SD*=1.56)	.05	**.35** **	**.27***	**.34** **	-.02	.01	-			
8. T2 Disordered eating symptoms (0-45; *M*=18.05; *SD*=12.63)	-.01	**-.26***	-.20	-.11	.20	-.05	**-.36** **	-		
9. T2 Anxiety symptoms (0-19; *M*=11.46; *SD*=4.38)	-.01	**-.23***	-.08	-.11	**.21***	-.11	**-.29** **	**.37*** **	-	
10. T2 Depression symptoms (0-19; *M*=7.13; *SD*=4.60)	.04	**-.32** **	-.16	**-.23***	-.06	-.06	**-.51*** **	**.35** **	**.57*** **	-

Note. ***p< .001, **p< .01, *p< .05

[a] This variable is created utilising another variable in this table (T1 number of group identifications).

[b] This variable is part of other variables in this table (number of group identifications at Time 1 and change in number of group identification over time).

These partial correlations were run after controlling for age, gender, ED diagnosis, and T1 scores for these variables

Exploration of the descriptive statistics of anxiety and depression symptoms

To investigate the boundaries of the HADS as outlined above (by utilising ≥ 8 as a potential case of anxiety/depression) a series of independent sample *t*-tests were conducted. As nine *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of $p < .006$ (i.e., .05/9) was utilised to explore differences according to anxiety cut-off. Exploration of the Levene's test for equality of variances was not significant for the main variables highlighted in Table 7.4. There were no significant differences between participants who did vs. did not meet the anxiety cut-off at T2 in relation to: age $t(93) = 1.29$, $p = .51$; number of group identifications $t(97) = 3.54$, $p = .05$; recovery identity $t(97) = 2.61$, $p = .48$; social support $t(95) = 1.31$, $p = .71$; concealment of disordered eating $t(94) = -1.77$, $p = .36$; group compatibility $t(97) = 4.80$, $p = .15$; SWL $t(97) = 2.09$, $p = .95$; and disordered eating symptoms $t(97) = -3.52$, $p = .85$. Despite these not being significant, the effect sizes were still explored, a small effect size was found for anxiety symptoms at T2 and the following variables: : age ($\eta^2 = .02$); social support ($\eta^2 = .02$); concealment of disordered eating ($\eta^2 = .03$); and SWL ($\eta^2 = .04$). A medium effect was found between anxiety symptoms at T2 and three variables: number of group identifications ($\eta^2 = .12$); recovery identity ($\eta^2 = .07$); and disordered eating symptoms ($\eta^2 = .13$). Finally, a large effect size was found between anxiety symptoms at T2 and group compatibility ($\eta^2 = .19$). This indicated that at T2 participants who did vs. did not meet the cut-off for anxiety did not differ on the T2 central criteria.

Table 7. 4. Means and standard deviations for the main variables at T2 and Anxiety cut-off at T2

T2 variable	Below Anxiety cut-off (*N*=22)	Above Anxiety cut-off (*N*= 77)
Mean age (*SD)*	30.00 (*10.33*)	27.08 (*8.77*)
Mean number of group identifications (*SD)*	2.55 (*.86*)	1.64 (*1.11*)
Mean social support (*SD*)	10.42 (*4.30*)	9.22 (*3.67*)
Mean concealment of disordered eating (*SD*)	5.48 (*2.36*)	6.61 (*2.66*)
Mean recovery identification (*SD)*	5.50 (*1.38*)	4.61 (*1.42*)
Mean group compatibility (*SD)*	5.91 (*.84*)	4.67 (*1.13*)
Mean satisfaction with life (*SD)*	4.42 (*1.56*)	3.64 (*1.53*)
Mean disordered eating symptoms (*SD)*	10.14 (*12.59*)	20.31 (*11.78*)

A chi-square test did not reveal a significant association between scoring below vs. above the cut-off for anxiety at T2 and gender, $\chi^2(1) = .04$, $p = .85$, *phi*= -.07 (small effect). This shows that there is no difference between the proportion of females vs. non female who scored above vs. below the cut-off for anxiety. There was also no significant association between scoring below vs. above the cut-off for anxiety at T2 and whether the participant had an ED diagnosis, $\chi^2 (1) = 1.73$, $p = .19$, *phi*= -.16 (small effect). This shows that there is no difference between the

proportion of participants with an ED diagnosis who scored above the cut-off for anxiety and those without an ED diagnosis. Finally, there was a medium significant association between scoring below vs. above the cut-off for anxiety at T2 and whether the participant had scored below or above the cut-off for depression at T2, χ^2 (1) = 11.84, p < .001, *phi*= .37 (medium effect). This shows that the proportion of participants who scored above the cut-off for depression at T2 also scored above the cut-off for anxiety at T2 was moderately more than those who scored below the cut-off for depression at T2 (as shown in Table 7.5).

Table 7. 5. Frequencies for main categorical variables for Anxiety cut-off at T2

T2 variable	Below Anxiety cut-off at T2	Above Anxiety cut-off at T2
Gender (Non-female)	2	4
Gender (Female)	19	71
Having an ED diagnosis	13	60
Not having an ED diagnosis	8	16
Below Depression cut-off	20	36
Above Depression cut-off	2	41

Following on in the investigation of the boundaries of the HADS (by utilising ≥ 8 as a potential case of anxiety/depression) another series of independent sample *t*-tests were conducted to explore differences according to the depression cut-off. As nine *t*-tests were conducted, a Bonferroni-corrected critical *p*-value of p< .006 (i.e., .05/9) was utilised. Exploration of the Levene's test for equality of variances was not significant for the main variables highlighted in Table 7.6. There were no significant differences between participants who did vs. did not meet the depression cut-off at T2 in relation to: age t(93) = 1.05, p = .39; number of group identifications t(97) = 4.10, p = .31; recovery identity t(97) = 3.10, p = .28; social support t(95) =

2.45, p = .14; concealment of disordered eating $t(94)$ = -.71, p = .83; group compatibility $t(97)$ = 4.82, p = .81; SWL $t(97)$ = 6.15, p = .36; and disordered eating symptoms $t(97)$ = -5.58, p = .32. Despite these not being significant, the effect sizes were still explored, a small effect size was found for depression symptoms at T2 and two variables: age (η^2 = .01); concealment of disordered eating (η^2 = .01). A medium effect was found between depression symptoms at T2 and two variables: recovery identity (η^2 = .07); social support (η^2 = .02). Finally, a large effect size was found between depression symptoms at T2 and number of group identifications (η^2 = .15); group compatibility (η^2 = .20); SWL (η^2 = .28) and disordered eating symptoms (η^2 = .25). This indicated that at T2 participants who did vs. did not meet the cut-off for depression did not differ on the T2 central criteria.

Table 7. 6. Means and standard deviations for the main variables at T2 and Depression cut-off at T2

T2 variable	Below Depression cut-off (*N*=56)	Above Depression cut-off (*N*= 43)
Mean age (*SD)*	28.56 (*9.54*)	26.58 (*8.60*)
Mean number of group identifications (*SD)*	2.21 (*.99*)	1.35 (*1.11*)
Mean social support (*SD*)	10.29 (*3.44*)	8.41 (*4.10*)
Mean concealment of disordered eating (*SD*)	6.20 (*2.68*)	6.59 (*2.58*)
Mean recovery identification (*SD)*	5.19 (*1.30*)	4.31 (*1.50*)
Mean group compatibility (*SD)*	5.40 (*1.06*)	4.34 (*1.08*)
Mean satisfaction with life (*SD)*	4.54 (*1.24*)	2.88 (*1.43*)
Mean disordered eating symptoms (*SD)*	14.29 (*11.44*)	22.96 (*12.56*)

A chi-square test did not reveal a significant association between scoring below vs. above the cut-off for depression at T2 and gender, $\chi^2(1) = 000$, $p = 1.00$, *phi*= .04 (small effect). This shows that there is no difference between the proportion of females vs. non females who scored above vs. below the cut-off for depression at T2. There was also no significant association between scoring below vs. above the cut-off for depression at T2 and whether the participant had an ED diagnosis, $\chi^2 (1) = .81$, $p = .37$, *phi*= -.12 (small effect). This shows there is no difference

between the proportion of people scoring above or below the cut-off for depression at T2 based of whether they had an ED diagnosis or not (as shown in Table 7.7).

Table 7. 7. Frequencies for main categorical variables for Depression cut-off at T2

T2 variable	Below Depression cut-off at T2	Above Depression cut-off at T2
Gender (Non-female)	3	3
Gender (Female)	52	38
Having an ED diagnosis	39	34
Not having an ED diagnosis	16	8

7.4.4. Hierarchical regressions

Eight hierarchical multiple regressions were conducted to address hypotheses 7.1; 7.7; and 7.13 by exploring the extent to which T1 number of group identifications, changes in group identifications over time and change in recovery identification over time individually predicted each of the mental health variables (disordered eating symptoms, anxiety symptoms, and depression symptoms) and well-being variable (SWL) at T2. Within all eight models, four control variables were used: age; gender (0= Female & 1= Non-Female); ED diagnosis (0= ED diagnosis & 1= No ED diagnosis); and the corresponding mental health or well-being variable at T1 (e.g., SWL at T1 was used as a control variable when investigating the relationship between T1 number of group identifications and T2 SWL). Both gender and ED diagnosis were coded as binary variables again, whilst number of group identifications T1 (a continuous variable) were coded from 0 (not identifying with any of the four groups; family, friends, a group used for support, and recovery identification) to 4 (identifying with all four groups). The control variables of age; gender; having an ED diagnosis, mental health, and well-being T1 were all entered at step 1, then each of the T1

versions of the predictor variables were entered separately at step 2, with the changes in these variables entered in step 3. These variables were entered this way to explore the variance of the main predictor (i.e., change in number of group identifications over time; and change in recovery identification over time) after controlling for the variance explained by the other variables. The two hierarchical regression results tables (change in number of group identifications over time; and changes in recovery identification over time) can be found below (Table 7.8 and Table 7.9).

Summary: Change in Number of Group Identification Over Time Regressions

The first four hierarchical multiple regressions explored the extent that change in number of group identifications between T1 and T2 predicted T2 mental health/well-being (SWL, disordered eating symptoms, anxiety symptoms, and depression symptoms), respectively (refer to Table 7.8).

At step 1 of the regression models the control variables (age, gender, having an ED diagnosis and T1 versions of the outcome variables) accounted for a significant amount of the variance in all outcome variables: T2 SWL: 66%; T2 disordered eating symptoms: 55%; T2 anxiety symptoms: 43%; and T2 depression symptoms: 47%. At step 2 T1 number of group identifications did not predict any of the outcome variables, after accounting for the control variables: T2 SWL: $\Delta R^2 = .01$, *F* change (1, 89) = 2.44, *p*= .12; T2 disordered eating symptoms: $\Delta R^2 = .01$, *F* change (1, 88) = .94, *p*= .34; T2 anxiety symptoms: $\Delta R^2 = .01$, *F* change (1, 89) = .87, *p*= .35; and T2 depression symptoms: $\Delta R^2 = .01$, *F* change (1, 89) = 1.06, *p*= .31. Thus, not supporting hypothesis 7.1. At step 3, change in number of group identifications over time significantly explained additional variance in each outcome variable, after accounting for the control variables: T2 SWL: $\Delta R^2 = .05$, *F* change (1, 88) = 15.76, *p*< .001, f^2= .18, shows a medium effect; T2 disordered eating symptoms: ΔR^2 = .04, *F* change (1, 87) = 8.69, *p*= .004, f^2= .10, shows a small effect; T2 anxiety symptoms: $\Delta R^2 = .04$, *F* change (1, 88) = 6.16, *p*= .02, f^2= .06, shows a small effect; and depression symptoms: $\Delta R^2 = .07$, *F* change (1, 89) = 12.64, *p*= .001, f^2= .15, shows a medium effect.

In the final models, an increase in number of group identifications over time significantly predicted all of the health/well-being outcomes: T2 SWL: (β = .25, *p*< .001); T2 disordered eating symptoms: (β = -.22, *p*= .004); T2 anxiety symptoms: (β = -.21, *p*= .02); and T2 depression symptoms: (β = -.22, *p*= .02), therefore, an increase in number of group identifications between T1 and T2 predicted higher T2 SWL, lower T2 disordered eating symptoms, lower T2 anxiety symptoms, and T2 depression symptoms, supporting hypothesis 7.7. Through these hierarchical regression models, it can be suggested that it is more than simply the number of group identifications someone seeking disordered eating recovery holds, it is an increase in the number of group identifications that has the beneficial relationship with T2 mental health and well-being for those people. Other significant predictors in the overall hierarchical regression models can be found in Table 7.8.

Table 7. 8. Hierarchical regression table for T1 number of group identifications and change in number of group identifications over time with T2 mental health and well-being variables

	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	B	SE	β	*B*	SE	β	*B*	SE	β	*B*	SE	β
Step 1												
Constant	1.09	.04		-15.08	7.77		7.44	2.94		-.28	3.00	
Age (years)	**-.03**	**.01**	**-.16***	.19	.10	.13	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1) [a]	.20	.37	.03	-2.14	3.44	.05	-.74	1.37	-.05	.32	1.35	.18
ED Diagnosis (0/1) [b]	.35	.23	.10	-3.41	2.07	-.12	-1.45	.83	-.14	.65	.84	.06
T1 Mental health/Well-being	**.75**	**.06**	**.77*** **	**2.20**	**.21**	**.74*** **	**.66**	**.09**	**.61*** **	**.76**	**.09**	**.69*** **
	R^2 = .66* **			**R^2 = .55*** **			**R^2 = .43*** **			**R^2 = .47*** **		
Step 2												
Constant	1.00	.83		-12.24	8.31		8.33	3.09		.95	3.21	
Age (years)	**-.03**	**.01**	**-.16***	.18	.10	.13	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1) [a]	.21	.37	.04	-2.16	3.45	-.05	-.71	1.37	-.04	.26	1.35	.02
ED Diagnosis (0/1) [b]	.34	.22	.10	-3.26	2.08	-.11	-1.46	.83	-.14	.61	.84	.06
T1 Mental health/Well-being	**.71**	**.07**	**.73*** **	**2.11**	**.23**	**.71*** **	**.63**	**.10**	**.58*** **	**.71**	**.10**	**.65*** **
T1 Number of Group IDs(0-4)	.15	.10	.12	-.89	.91	-.08	-.33	.35	-.08	-.40	.38	-.09
	R^2 = .67*; ΔR^2 = .01**			**R^2 = .55***; ΔR^2 = .005**			**R^2 = .44***; ΔR^2 = .006**			**R^2 = .47***; ΔR^2 = .006**		
Step 3												
Constant	.79	.37		-8.30	8.08		9.41	3.04		2.44	3.05	
Age (years)	**-.03**	**.01**	**-.16****	.18	.10	.13	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1)[a]	.22	.34	.04	-2.19	3.31	-.05	-.71	1.33	-.04	.16	1.27	.01
ED Diagnosis (0/1)[b]	.32	.21	.09	-3.00	2.00	-.10	-1.42	.81	-.14	.67	.79	.06
T1 Mental health/Well-being	**.67**	**.06**	**.69*** **	**2.01**	**.23**	**.68*** **	**.60**	**.10**	**.56*** **	**.68**	**.09**	**.62*** **
T1 Number of Group IDs (0-4)	**.32**	**.10**	**.22****	**-2.07**	**.97**	**-.18***	-.70	.37	-.17	**-.93**	**.39**	**-.22***
Change in Number of Group IDs Over Time (-4 to 4)	**.40**	**.10**	**.25*** **	**-2.87**	**.98**	**-.22****	**-.95**	**.38**	**-.21***	**-1.34**	**.38**	**-.28****
	R^2 = .72*; ΔR^2 = .05*** **			**R^2 = .59***; ΔR^2 = .04****			**R^2 = .47***; ΔR^2 = .04***			**R^2 = .54***; ΔR^2 = .07****		

Note: * *p*< .05; ** *p*< .01; *** *p*< .001.

[a] 0= Female, 1= Non-Female.

[b:] 0= ED diagnosis, 1= No ED diagnosis

Summary: Change in Recovery Identification Over Time Regressions

The final four hierarchical multiple regressions explored the extent that change in recovery identification between T1 and T2 predicted T2 mental health/well-being (SWL, disordered eating symptoms, anxiety symptoms, and depression symptoms), respectively (refer to Table 7.9).

At step 1 of the regression models the control variables (age, gender, having an ED diagnosis and T1 versions of the outcome variables) accounted for a significant amount of the variance in two outcome variables: T2 SWL: 66% and T2 disordered eating symptoms: 55%. At step 2, after accounting for the control variables, recovery identification at T1 did not predict T2 SWL: $\Delta R^2 <$ .001, *F* change (1, 88) = .12, *p*= .73, but recovery identification at T1 did predict T2 disordered eating symptoms: ΔR^2 = .02, *F* change (1, 89) = 4.60, *p*= .04. At step 3, change in recovery identification over time significantly explained additional variance in two outcome variables, after accounting for the control variables: T2 SWL: ΔR^2 = .04, *F* change (1, 88) = 10.04, *p*= .002, f^2= .10, shows a small effect; and T2 disordered eating symptoms: ΔR^2 = .04, *F* change (1, 88) = 9.91, *p*= .002, f^2= .13, shows a small effect.

In the final models, change in recovery identification over time significantly predicted T2 SWL: (β = .21, *p*= .002); and T2 disordered eating symptoms: (β = -.24, *p*= .002), therefore, an increase in recovery identification between T1 and T2 predicted higher T2 SWL and lower T2 disordered eating symptoms, supporting Hypothesis 7.13. However, change in recovery identification over time did not significantly predict anxiety or depression symptoms, as such hypothesis 7.13 is not fully supported. Other significant predictors in the overall hierarchical regression models can be found in Table 7.9. Through these two significant hierarchical regression models it can be argued that an increase in recovery identification is important for mental health and well-being, specifically SWL and disordered eating symptoms.

Table 7. 9. Hierarchical regression table for change in recovery identification over time with T2 mental health and well-being variables

	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	B	SE	β	*B*	SE	β	*B*	SE	β	*B*	SE	β
Step 1												
Constant	1.09	.84		-15.08	7.77		7.44	2.94		-.28	2.99	
Age (years)	**-.03**	**.01**	**-.16***	-.19	.10	-.13	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1) [a]	-.20	.37	-.03	-2.14	3.44	-.05	-.74	1.37	-.05	-.32	1.25	-.02
ED Diagnosis (0/1) [b]	.35	.23	.10	-3.41	2.07	-.12	-1.45	.83	-.14	.65	.84	.06
T1 Mental health/Well-being	**.75**	**.06**	**.78*** **	**2.29**	**.21**	**.74*** **	**.66**	**.09**	**.61*** **	**.76**	**.09**	**.69*** **
		R^2 = .66* **			**R^2 = .55*** **			**R^2 = .43*** **			**R^2 = .47*** **	
Step 2												
Constant	1.02	.87		-7.15	8.47		8.65	3.12		.34	3.22	
Age (years)	**-.03**	**.01**	**-.16***	-.17	.10	-.13	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1) [a]	-.20	.37	-.03	-1.76	3.38	-.04	-.70	1.37	-.04	-.32	1.35	-.018
ED Diagnosis (0/1) [b]	.36	.23	.10	-3.67	2.04	-.13	-1.53	.83	-.15	.60	.85	.06
T1 Mental health/Well-being	**.75**	**.06**	**.77*** **	**2.01**	**.23**	**.67*** **	**.64**	**.09**	**.59*** **	**.75**	**.09**	**.68*** **
T1 Recovery identification	.02	.05	.02	**-1.11**	**.52**	**-.16***	-.22	.19	-.09	-.10	.20	-.04
		R^2 = .66*; ΔR^2 = .000**			**R^2 = .57***; ΔR^2 = .02***			**R^2 = .44***; ΔR^2 = .008**			**R^2 = .47***; ΔR^2 = .002**	
Step 3												
Constant	1.16	.83		-3.33	8.17		8.54	3.12		.62	3.20	
Age (years)	**-.03**	**.01**	**-.16****	-.16	.09	-.12	-.03	.04	-.07	-.01	.04	-.01
Gender (0/1)[a]	-.03	.36	-.01	-.12	3.28	-.003	-.56	1.37	-.03	-.60	1.36	-.04
ED Diagnosis (0/1)[b]	.35	.22	.10	-3.47	1.94	-.12	-1.47	.83	-.15	.60	.84	.06
T1 Mental health/Well-being	**.71**	**.06**	**.73*** **	**1.78**	**.23**	**.60*** **	**.65**	**.09**	**.60*** **	**.73**	**.09**	**.66*** **
T1 Recovery Identification	.09	.06	.11	**-1.89**	**.55**	**-.28****	-.30	.20	-.12	-.23	.21	-.09
Change in recovery identification over time	**.24**	**.08**	**.21****	**-2.25**	**.71**	**-.24****	-.32	.28	-.10	-.44	.29	-.13
		R^2 = .69*; ΔR^2 = .04****			**R^2 = .62***; ΔR^2 = .04*** **			**R^2 = .45***; ΔR^2 = .008**			**R^2 = .48***; ΔR^2 = .01**	

Note: * p< .05; ** p< .01; *** p< .001.

[a:] 0= Female, 1= Non-Female.

[b:] 0= ED diagnosis, 1= No ED diagnosis

7.4.5. Moderation analyses

Moderation analyses were conducted to further investigate the relationship between T1 number of group identifications and T2 mental health/well-being. More specifically, the analyses were conducted to explore whether i) T1 concealment of disordered eating from social groups, and/or ii) T1 group compatibility moderated the relationship (addressing Hypotheses 7.2 and H7.3). Analyses were also conducted to test whether i) T1 concealment of disordered eating from social groups, and/or ii) T1 group compatibility moderated the relationship between change in number of group identifications over time and T2 mental health/well-being (addressing Hypotheses 7.7 and H7.9). Finally, the last moderation analyses investigated whether i) T1 concealment of disordered eating from social groups, and/or ii) T1 group compatibility moderated the relationship between change in recovery identification over time and T2 mental health/well-being (addressing Hypotheses 7.14 and H7.15). As with the hierarchical regressions, age gender, ED diagnosis (or not), and T1 mental health/well-being were utilised as covariates. When exploring change over time, the baseline for each variable was controlled for (i.e., using change in recovery identification over time as a predictor, then in addition to the control variables above, recovery identification at T1 would also be used as a covariate). All the following moderation models have been summarised in Table 7.10 (significant models are in bold).

Summary: T1 Concealment Moderating the Relationship Between T1 number of group identifications and T2 Mental Health/Well-Being

The initial moderations were conducted to explore the moderating effect of concealment of disordered eating from social groups on the relationship between T1 number of group identifications and T2 mental health/well-being (hypotheses 7.2). The following interactions between T1 number of group identifications and T1 concealment were not significant in predicting T2 SWL (*b* = .04, *t*(86) = .94, *p* = .35, *LLCI*= -.04, *ULCI* = .12); T2 disordered eating symptoms (*b* = -.50,

t(86) = -1.38, *p* = .17, *LLCI*= -1.23, *ULCI* = .22); T2 anxiety symptoms (*b* = -.05, *t*(86) = -.38, *p* = .70, *LLCI*= -.33, *ULCI* = .23); and T2 depression symptoms (*b* = -.13, *t*(86) = -.95, *p* = .35, *LLCI*= -.41, *ULCI* = .15). Therefore, these four moderation models show that T1 concealment does not moderate the relationship between T1 number of group identifications and T2 mental health/well-being, thus not supporting hypothesis 7.2.

Summary: T1 number of group identifications and T1 Group Compatibility Moderations

The next four moderations were conducted to explore the moderating effect of group compatibility on the relationship between T1 number of group identifications and T2 mental health/well-being (hypothesis 7.3). The following interactions between T1 number of group identifications and T1 group compatibility were not significant in predicting T2 SWL (*b* = -.08, *t*(86) = .99, *p* = .32, *LLCI*= -.25, *ULCI* = .08); T2 disordered eating symptoms (*b* = -.18, *t*(86) = -.25, *p* = .80, *LLCI*= -1.64, *ULCI* = 1.27); T2 anxiety symptoms (*b* = -.23, *t*(86) = -.82, *p* = .41, *LLCI*= -.80, *ULCI* = .30); and T2 depression symptoms (*b* = .13, *t*(86) = .47, *p* = .64, *LLCI*= -.43, *ULCI* = .70). Therefore, these four moderation models show that the relationship between T1 number of group identifications and T2 mental health/well-being is not moderated by T1 group compatibility, thus not supporting Hypothesis 7.3.

The Moderating Effect of Concealment on the Relationship Between Change in Number of Group Identifications Over time and T2 mental health/well-being

The next analyses explored the moderating effect of concealment of disordered eating at T1 on the relationship of change in number of group identifications over time, and T2 mental health/well-being to address hypothesis 7.8.

Summary: T1 Concealment Moderating the Relationship Between Change in Number of Group Identifications Over time and T2 Mental Health/Well-being

Four moderation models tested the moderating effect of T1 concealment of disordered eating from social groups on the relationship between change in number of group identifications over time and T2 health/well-being variables (SWL; disordered eating symptoms, anxiety symptoms, and depression symptoms). The overall model accounted for a significant amount of the variance in all outcome variables: T2 SWL model: R^2 = .71, $F(7, 86) = 26.14$, $p < .001$; T2 Disordered eating symptoms model: R^2 = .60, $F(7,86) = 18.76$, $p < .001$; T2 Anxiety symptoms model: R^2 = .49, $F(7,86) = 11.79$, $p < .001$; and T2 Depression symptoms model: R^2 = .55, $F(7, 86) = 15.12$, $p < .001$.

The interaction between change in number of group identifications over time and T1 concealment were significant in predicting T2 SWL: *b* = -.07, *t*(85) = -2.17, *p* = .03, *LLCI*= -.14, *ULCI*= -.01, indicating moderation. The effect size for this relationship (f^2= .10) shows that the interaction between change in number of group identifications and concealment at T1 has a small relationship with SWL at T2. To further explore this moderating effect, a simple slopes analysis was conducted (Appendix 11). There was a significant positive relationship between change in number of group identifications over time and T2 SWL when concealment was low (-1SD), (*b*= .62, *t*(85) = 4.29 *p*< .001, *LLCI*= .33, *ULCI*= .91). This relationship was present (albeit weaker) when concealment was high (+1SD) (*b*= .26, *t*(85) = 2.16 *p*= .03, *LLCI*= .02, *ULCI*= .50). This suggests that an increase in number of group identifications over time has a positive relationship with T2 SWL, which is stronger when concealment of disordered eating from social groups is low, partially supporting hypothesis 7.8. This interaction between change in number of group identifications and T1 concealment was not significant in predicting: T2 disordered eating symptoms (*b* = .04, *t*(85) = .13, *p* = .90, *LLCI*= -.58, *ULCI* = .66); T2 anxiety symptoms (*b* = -.02, *t*(85) = -.12, *p* = .91, *LLCI*= -.26, *ULCI* = .23); and T2 depression symptoms (*b* = .13, *t*(85) = 1.14, *p* = .26, *LLCI*= -.10, *ULCI* = .37).

Therefore, these moderation models show that the relationship between change in number of group identifications over time and mental health at T2 is not moderated by concealment of disordered eating from social groups at T1, thus not fully supporting hypothesis 7.8.

Overall, one moderation model (T2 SWL) showed that T1 concealment of disordered eating from social groups moderated the relationship between change in number of group identifications over time and T2 well-being, thus partially supporting hypothesis 7.8. However, there was no evidence of T1 concealment moderating the relationship between change in number of group identifications over time and T2 mental health (disordered eating symptoms, anxiety symptoms, depression symptoms). As hypothesised, a positive relationship between change in number of group identifications over time and T2 SWL was found when concealment of disordered eating was low. However, this relationship was also significant at high levels (albeit not as strong), therefore hypothesis 7.8 is not fully supported.

Change in Number of Group Identifications Over time and T1 Group Compatibility Moderations

Moderation models explored the relationship between change in number of group identifications over time, and T2 mental health/well-being. More specifically, the analyses tested whether T1 group compatibility moderates the relationship between change in recovery identification over time and well-being at T2 (hypothesis 7.9).

Summary: T1 Group Compatibility Moderating the Relationship Between Change in Number of Group Identifications Over time and T2 Mental Health/Well-being

Four moderation models tested the moderating effect of T1 group compatibility on the relationship between change in number of group identifications over time and T2 health/well-being variables (SWL; disordered eating symptoms, anxiety symptoms, and depression symptoms). The overall model accounted for a significant amount of the variance in all outcome variables: T2 SWL

model: R^2 = .68, F(7, 86) = 26.34, p< .001; T2 disordered eating symptoms model: R^2 = .60, F(7, 86) = 18.46, p< .001; T2 anxiety symptoms model: R^2 = .49, F(7, 86) = 11.65, p< .001; and T2 depression symptoms model: R^2 = .55, F(7, 86) = 15.08, p< .001.

The interaction between change in number of group identifications over time and T1 group compatibility was significant in predicting T2 SWL, b= .20, t(8,85)= 2.25, p= .03, *LLCI*= .023, *ULCI*, indicating moderation. The effect size for this relationship (f^2= .12) shows that the interaction between change in number of group identifications and group compatibility at T1 has a small relationship with SWL at T2. To further explore this moderating effect, a simple slopes analysis was conducted (Appendix 12). There was not a significant relationship between change in number of group identifications over time and T2 SWL when group compatibility was low (-1SD), (b= .21, t(85) = 1.63 p= .11, *LLCI*= -.05, *ULCI*= .47). This relationship was significantly positive when group compatibility was high (+1SD) (b= .70, t(85) = 4.12 p< .001, *LLCI*= .36, *ULCI*= 1.04). This suggests that an increase in number of group identifications has a positive relationship with T2 SWL, but only for those who report highly compatible social groups, supporting hypothesis 7.9. This interaction between change in number of group identifications and T1 group compatibility were not significant in predicting T2 disordered eating symptoms (b = .16, t(85) = .20, p = .84, *LLCI*= -1.46, *ULCI* = 1.79); T2 anxiety symptoms (b = .24, t(85) = .75, p = .46, *LLCI*= -.40, *ULCI* = .88); and T2 depression symptoms (b = -.19, t(85) = -.59, p = .56, *LLCI*= -.81, *ULCI* = .44).

Overall, one moderation model (T2 SWL) showed that T1 group compatibility moderated the relationship between change in number of group identifications over time and T2 well-being, thus partially supporting hypothesis 7.9. However, there was no evidence of T1 group compatibility moderating the relationship between change in number of group identifications over time and T2 mental health (disordered eating symptoms, anxiety symptoms, depression symptoms). As hypothesised, a positive relationship between change in number of group identifications over time and T2 SWL was found when compatibility of groups was high.

Change in Recovery Identification over time and T1 Concealment Moderations

The next moderation models explored the relationship between change in recovery identity over time, and T2 mental health/well-being. More specifically the analyses tested whether T1 concealment of disordered eating moderated the relationship between change in recovery identification over time and T2 mental health/well-being (hypothesis 7.14).

Summary: T1 Concealment Moderating the Relationship Between Change in recovery identification over time and T2 Mental Health/Well-being

Four moderation models tested the moderating effect of T1 concealment of disordered eating from social groups on the relationship between change in recovery identification over time and T2 health/well-being variables (SWL; disordered eating symptoms, anxiety symptoms, and depression symptoms). The overall model accounted for a significant amount of the variance in all outcome variables: T2 SWL, R^2 = .70, F(8, 85)= 24.53, p< .001; T2 disordered eating symptoms model: R^2 = .62, F(7,86) = 20.08, p< .001; T2 anxiety symptoms model: R^2 = .48, F(7,86) = 11.38, p< .001; and T2 depression symptoms model: R^2 = .56, F(8, 85)= 13.44, p< .001.

The interaction between change in recovery identification over time and T1 concealment was significant in predicting T2 SWL, b= -.05, t(85)= -2.27, p= .03, *LLCI*= -.09, *ULCI*= -.01, and T2 depression symptoms, b= .19, t(85)= 2.48, p= .02, *LLCI*= .04, *ULCI*= .34, indicating moderation for these two models. The effect sizes for these two significant moderation models show that the interaction between change in recovery identification and concealment at T2 explains a small-sized proportion of the variance in SWL (f^2= .06). The same interaction explains a medium-sized proportion of the variance in depression symptoms (f^2= .24). However, there was no evidence of moderation for T2 disordered eating symptoms (b = .34, t(85) = 1.75, p = .08, *LLCI*= -.05, *ULCI* = .72), and T2 anxiety symptoms (b = .05, t(85) = .65, p = .52, *LLCI*= -.11, *ULCI* = .21).

To explore the significant moderating effects further, simple slopes analyses were conducted, (Appendix 13). These showed that the relationship between change in recovery identification and

T2 SWL was significant when concealment was low (-1SD), (*b*= .46, *t*(85) = 4.03 *p*< .001, *LLCI*= .23, *ULCI*= .69) and when concealment was high (*b*= .21, *t*(85) = 2.75 *p*= .01, *LLCI*= .06, *ULCI*= .37). There was only a significant negative relationship between change in recovery identification over time and T2 depression symptoms when concealment was low (-1SD), (*b*= 1.20, *t*(85) = -3.05 *p*= .003, *LLCI*= -1.98, *ULCI*= -.42). These suggest that an increase in recovery identification has a positive relationship with T2 SWL, which is stronger when concealment of disordered eating from social groups is low, partially supporting hypothesis 7.14. However, an increase in recovery identification is associated with fewer T2 depression symptoms, but only when concealment of disordered eating is low, supporting hypothesis 7.14.

Summary: T1 Group Compatibility Moderating the Relationship Between Change in Recovery Identification Over time and T2 Mental health/Well-being

The final four moderations were conducted to explore the moderating effect of group compatibility on the relationship between change in recovery identification over time and T2 mental health/well-being (hypothesis 7.15). The following interactions between change in recovery identification over time and T1 group compatibility were not significant in predicting T2 SWL (*b* = .13, *t*(85) = 1.49, *p* = .14, *LLCI*= -.04, *ULCI* = .30); T2 disordered eating symptoms (*b* = -.04, *t*(85) = -.05, *p* = .96, *LLCI*= -1.54, *ULCI* = 1.46); T2 anxiety symptoms (*b* = .42, *t*(85) = 1.36, *p* = .18, *LLCI*= -.20, *ULCI* = 1.04); and T2 depression symptoms (*b* = .23, *t*(85) = .73, *p* = .47, *LLCI*= -.39, *ULCI* = .85). Therefore, these moderation models show that the relationship between change in recovery identification over time and T2 mental health/well-being are not moderated by T1 group compatibility, thus not supporting Hypothesis 7.15.

Summary: Study 2b T1 Concealment of Disordered Eating and T1 Group Compatibility Moderation Analyses

From the above moderation analyses, an increase in number of group identifications held between T1 and T2 (from the four utilised: family, friends, a group used for support, and recovery identification) positively predicted T2 SWL for participants who reported low and high levels of concealment of disordered eating at T1, but this was stronger for those who reported low levels of concealment (partially supporting hypothesis 7.8). This moderation model does not support Study 2a conclusions (that number of group identifications and mental health/well-being is only significant when concealment is low) as change in number of group identifications over time and T2 SWL was significantly positive at both high and low levels of concealment. As such, it could be suggested concealment is more complex over time than was found concurrently in Study 2a as the positive relationship between an increase in number of group identifications over time and T2 SWL was significant at both levels of concealment of disordered eating from social groups, which supports Study 1 conclusions.

Additionally, an increase in number of group identifications between T1 and T2 positively predicted T2 SWL for those who reported highly compatible groups at T1 (supporting hypothesis 7.9). Study 2a did not show that group compatibility was a significant moderator, however, high group compatibility functions as a significant moderator on the relationship between an increase in number of group identifications over time and T2 well-being. It could be argued that group compatibility does not moderate the relationship between number of group identifications and mental health/well-being (as concluded in Study 2a), but it does moderate the relationship between increase in number of group identifications and mental health/well-being.

An increase in recovery identification between T1 and T2 positively predicted T2 SWL for participants who reported low and high levels of concealment of disordered eating at T1, but this was strongest for low levels of concealment (partially supporting hypothesis 7.14). The final significant moderation model showed that an increase in recovery identification between T1 and T2 predicted lower depression symptoms, but only for participants who reported low levels of concealment, supporting hypothesis 7.14). Through this moderation model, it can be argued that

concealment of disordered eating is an important variable to consider when exploring recovery identification and mental health/well-being.

However, the analyses revealed that neither T1 concealment nor T1 group compatibility moderated the relationship between T1 number of group identifications and T2 mental health/well-being, thus not supporting hypotheses 7.2 and H7.3. T1 group compatibility and T1 concealment also did not significantly moderate the relationship between a change in number of group identifications over time and T2 mental health, thus hypotheses 7.8 and H7.9 were only partially supported. As such, it can be claimed that concealment and group compatibility only moderate the relationship between a change in number of group identifications over time and T2 well-being (SWL). T1 group compatibility did not moderate the relationship between change in recovery identification over time and T2 mental health/well-being, not supporting hypothesis 7.15. Finally, T1 concealment of disordered eating did not moderate the relationship between change in recovery identification over time and T2 disordered eating symptoms/anxiety symptoms, not supporting hypothesis 7.14. Despite this, it can be concluded that T1 concealment of disordered eating and T1 group compatibility are important variables to consider when exploring social groups people seeking disordered eating recovery belong to.

Table 7. 10. Study 2b moderation models exploring the moderating effect of either concealment or group compatibility (at T1) on the relationship between the predictor variables (T1 number of group identifications; change in number of group identifications over time; and recovery identification over time), mental health and well-being at T2 (after controlling for age, gender, diagnosis and T1 baseline variables).

Interaction between predictor variable and moderator variable	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	b	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*
T1 Number of group identifications x T1 concealment	.04	-.04	.12	-.50	-.23	.22	-.05	-.33	.23	-.13	-.41	.15
T1 Number of group identifications x T1 group compatibility	-.08	-.25	.08	-.18	-1.64	1.27	-.23	-.80	.33	1.34	-.43	.70
Number of group identifications over time x T1 concealment	**-.07***	**-.14**	**-.01**	.04	-.58	.66	-.02	-.26	.23	.13	-.10	.37
Number of group identifications over time x T1 group compatibility	**.20***	**.02**	**.37**	.16	-1.46	1.79	.24	-.40	.88	-.18	-.81	.44
Recovery identification over time x T1 concealment	**-.05***	**-.09**	**-.01**	.34	-.05	.72	.05	-.11	.21	**.19***	**.04**	**.34**
Recovery identification over time x T1 group compatibility	.13	-.04	.30	-.04	-1.54	1.46	.42	-.20	1.04	.23	-.39	.85

Note: * $p < .05$.

7.4.6. Mediation analyses

Mediation analyses were conducted to investigate the mediating effect of T2 social support on the relationship between T1 number of group identifications and T2 mental health/well-being; the relationship between change in number of group identifications between T1 and T2 and T2 mental health/well-being; and the relationship between change in recovery identification between T1 and T2 and T2 mental health/well-being. All the following mediation models have been summarised in Table 7.11, significant paths within the mediation models are in bold.

More specifically, the first series of mediation analyses were conducted to explore whether T1 number of group identifications would predict T2 mental health/well-being through T2 social support (hypothesis 7.4). The next mediations explored whether change in number of group identifications over time (between T1 and T2) would predict T2 mental health/well-being through T2 social support (hypothesis 7.10). The final collection of mediation models tested whether change in recovery identification over time predicted T2 mental health/well-being through T2 social support (hypothesis 7.16). As with the previous analyses, age, gender, ED diagnosis (or not), mental health and well-being at T1,with the addition of T1 social support were utilised as covariates, and when exploring change over time, the T1 for each variable was also controlled for. However T2 social support did not mediate the relationship between any of the predictors (number of groups held at T1; change in number of group identifications over time; and change in recovery identification over time) and T2 mental health/well-being outcomes. Therefore not supporting Study 2b hypotheses (7.4; 7.10; 7.16) or the cross-sectional findings (reported in Section 6.5.5).

Table 7. 11. Study 2b mediation models exploring the mediating effect of T2 social support on the relationship between the predictor variables (T1 number of group identifications; change in number of group identifications over time; and recovery identification over time), mental health and well-being at T2 (after controlling for age, gender, diagnosis and T1 baseline variables).

Predictor variable	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	b	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*
T1 number of group identifications → T2 social support												
a	.64	-.30	1.58	.58	-.40	1.56	.57	-.39	1.52	.67	-.28	1.61
b	**.08****	**.03**	**.14**	-.28	-.77	.22	-.14	-.33	.05	**-.24***	**-.42**	**-.06**
c’	.03	-.20	.26	.10	-2.17	2.37	-.11	-.96	.74	.18	-.62	.99
c	.08	-.16	.32	-.06	-2.31	2.19	-.19	-1.04	.66	.03	-.80	.85
ab	.04	-.02	.13	-.01	-.07	.02	-.02	-.08	.02	-.04	-.12	.02
Change in number of group identifications over time → T2 social support												
a	**1.83*****	**1.17**	**7.24**	**1.80*****	**1.10**	**2.51**	**1.80*****	**1.09**	**2.51**	**1.80*****	**1.09**	**2.52**
b	.06	-.0001	.12	.02	-.53	.55	-.08	-.29	.14	-.14	-.34	.06
c’	.20	-.02	.42	**-2.27***	**-4.31**	**-.23**	-.52	-1.32	.28	-.72	-1.47	.03
c	**.31****	**.11**	**.51**	**-2.24***	**-4.02**	**-.46**	-.65	-1.35	.05	**-.97***	**-1.64**	**-.31**
ab	.07	-.01	.20	.003	-.07	.10	-.03	-.11	.05	-.06	-.15	.02
Change in recovery identification over time → social support												
a	**.67***	**.11**	**1.22**	**.64***	**.08**	**1.19**	**.70***	**.15**	**1.25**	**.67***	**.12**	**1.22**
b	**.07***	**.02**	**.12**	-.16	-.66	.34	-.14	-.33	.06	**-.21***	**-.39**	**-.02**
c’	**.18***	**.04**	**.32**	-1.24	-2.55	.07	-.06	-.58	.46	-.24	-.73	.24
c	**.22****	**.09**	**.36**	**-1.34***	**-2.61**	**-.08**	-.16	-.66	.35	-.38	-.86	.10
ab	.04	-.01	.09	-.01	-.05	.04	-.03	-.08	.01	-.04	-.10	.002

Note: * $p < .05$.

7.4.7. Moderated mediation analyses

This final collection of analyses is a series of moderated mediation models. The first series of moderated mediation models explored whether T1 number of group identifications predicted T2 mental health/well-being through T2 social support but only for those low in T1 concealment of disordered eating (hypothesis 7.5). The next moderated mediation models tested whether T1 number of group identifications predicted T2 mental health/well-being through T2 social support, but only for those who report highly compatible groups at T1 (hypothesis 7.6). The third collection of moderated mediation models explored whether change in number of group identifications over time (between T1 and T2) would predict T2 mental health/well-being through T2 social support, but only for those low in T1 concealment (hypothesis 7.11). The next moderated mediation models tested whether change in number of group identifications over time predicted T2 mental health/well-being through T2 social support, for those with highly compatible social groups at T1 (hypothesis 7.12). The fifth collection of moderated mediation analyses explored whether change in recovery identification (between T1 and T2) predicted T2 mental health/well-being through T2 social support, but only for those who were low in T1 concealment (hypothesis 7.17). The final series of moderated mediations tested whether change in recovery identification over time predicted T2 mental health/well-being through T2 social support, but only for those who reported highly compatible social groups at T1 (hypothesis 7.18). As with the previous analyses, age, gender, ED diagnosis (or not), T1 social support, and T1 mental health/well-being were utilised as covariates, and when exploring change over time, the T1 versions of the predictor were also controlled for.

Summary: T1 concealment Moderating the Mediating Effect of T1 number of group identifications on T2 mental health/well-being via T2 Social Support

Four moderation models were conducted to test whether T1 number of group identifications predicted T2 mental health/well-being T2 though social support, but only for those low in T1 concealment of their disordered eating (hypothesis 7.5). The interaction between T1 number of group identifications and T1 concealment was not significant in predicting T2 social support in any of the four moderated mediation models, indicating no moderation, as highlighted in Table 7.12 and in the index of moderated mediations provided in Appendix 14. Therefore, not supporting hypothesis 7.5.

Table 7. 12. Study 2b Moderated mediation models exploring the relationship between the predictor variables (T1 number of group identifications; change in number of group identifications over time; and recovery identification over time), and T2 mental health and well-being through T2 social support depending on their concealment of disordered eating symptoms (after controlling for age, gender, diagnosis and T1 baseline variables).

Predictor variable	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	b	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*
T1 number of group identifications → T1 concealment → T2 social support												
a (x → m)	-.97	-3.41	1.47	-1.27	-3.82	1.28	-1.30	-3.80	1.19	-.92	-3.35	1.52
w → m	-.40	-.95	.16	-.42	-.98	.13	-.44	-1.01	.12	-.40	-.95	.15
Interaction → m	.22	-.11	.54	.25	-.08	.58	.25	-.08	.58	.21	.11	.53
b (m → y)	.08**	.03	.14	-.28	-.77	.22	-.14	-.33	.05	-.24*	-.42	-.06
c’ (x → y)	.03	-.20	.26	.10	-2.17	2.37	-.11	-.96	.74	.18	-.62	.99
c^1 (x → m → y, at -1SD of w)	.0004	-.11	.15	.04	-.67	.67	.02	-.20	.30	-.01	-.35	.33
c2 (x → m → y, at +1SD of w)	.09	-.03	.27	-.30	-1.18	.22	-.15	-.49	.07	-.26	-.71	.09
Change in number of group identifications over time → T1 concealment → T2 social support												
a (x → m)	**3.12****	**1.15**	**5.09**	**3.25****	**1.26**	**5.23**	**3.18****	**1.21**	**5.15**	**3.18****	**1.21**	**5.14**
w → m	-.24	-.53	.05	-.19	-.49	.11	-.20	-.49	.08	-.23	-.52	.06
Interaction → m	-.16	-.40	.09	-.18	-.43	.07	-.17	-.42	.07	-.17	-.41	.07
b (m → y)	.06	-.0001	.12	.02	-.53	.55	-.08	-.29	.14	-.14	-.34	.06
c’ (x → y)	.20	-.02	.42	**-2.27***	**-4.31**	**-.23**	-.52	-1.32	.28	-.72	-1.47	.03
c^1 (x → m → y, at -1SD of w)	.14	-.02	.42	.04	-1.44	1.44	-.18	-.76	.26	-.34	-.92	.08
c2 (x → m → y, at +1SD of w)	.10	-.01	.28	.03	-.75	1.22	-.12	-.45	.22	-.22	-.59	.07
Change in recovery identification over time → T1 concealment → social support												
a (x → m)	**2.50****	**1.00**	**4.00**	**2.48****	**.96**	**3.99**	**2.40****	**.91**	**3.89**	**2.39****	**.89**	**3.88**
w → m	-.18	-.49	.13	-.13	-.45	.20	-.15	-.45	.16	-.18	-.50	.13
Interaction → m	**-.21***	**-.38**	**-.05**	**-.22***	**-.39**	**-.05**	**-.20***	**-.37**	**-.03**	**-.20***	**-.37**	**-.03**
b (m → y)	**.07***	**.02**	**.12**	-.16	-.66	.34	-.14	-.33	.06	**-.21***	**-.39**	**-.02**
c’ (x → y)	**.18***	**.04**	**.32**	-1.24	-2.55	.07	-.06	-.58	.46	-.24	-.73	.24
c^1 (x → m → y, at -1SD of w)	.10*	.01	.21	-.24	-1.05	.55	-.20	-.47	.06	**-.31***	**-.61**	**-.02**
c2 (x → m → y, at +1SD of w)	.03	-.01	.09	-.06	-.36	.26	-.07	-.22	.03	-.10	-.27	.03

Note: ***p*< .01; * *p*< .05.

T1 Group Compatibility Moderating the Mediating Effect of T1 number of group identifications on SWL via Social Support

This moderated mediation model explored whether T2 social support mediated the relationship between T1 number of group identifications and T2 SWL, and whether the path between T1 number of group identifications and social support was moderated by T1 group compatibility (hypothesis 7.6, depicted in Figure 7.5). There was a significant interaction between T1 number of group identifications and T1 group compatibility (*b* = .77, *SE*= .32, *t*= 2.44, *p*= .02, *LLCI*= .14, *ULCI*= 1.40), indicating T1 group compatibility moderated the relationship between the T1 number of group identifications and T2 social support. To explore the significant moderating effect further, a simple slopes analysis was conducted (see Appendix 15). This showed a significant positive relationship between T1 number of group identifications and T2 social support when T1 group compatibility was high (+1SD), (*b* = 1.27, *SE*= .57, *t*= 2.21, *p*= .03, *LLCI*= .13, *ULCI*= 2.40). This relationship was not significant when T1 group compatibility was low (-1SD) (*b* = -.67, *SE*= .68, *t*= -.99, *p*= .33, *LLCI*= -2.01, *ULCI*= .68). T2 social support was a significant positive predictor of T2 SWL (*b* = .08, *SE*= .03, *t*= 3.13, *p*= .002, *LLCI*= .03, *ULCI*= .14).

The direct relationship between T1 number of group identifications and T2 SWL was not significant (*b* = .03, *SE*= .12, *t*= .26, *p*= .80, *LLCI*= -.20, *ULCI*= .26). The conditional indirect effect of T1 number of group identifications on T2 SWL through T2 social support was significant at high levels (+1SD) of group compatibility, (*b* = .11, *Boot SE*= .07 *Boot LLCI*= .01, *Boot ULCI*= .28), but was not significant at low levels (-1SD) of T1 group compatibility (*b* = -.06, *Boot SE*= .05, *Boot LLCI*= -.18, *Boot ULCI*= .04). The index of moderated mediation for group compatibility was significant (*Index* = .06, *Boot SE*= .04, *Boot LLCI*= .01, *Boot ULCI*= .15). Exploration of the index of moderated mediation shows that this indirect relationship accounts for 6% of the variance in SWL at T2. Thus, the conditional indirect effect of T1 number of group identifications on T2 SWL through T2 social support is only significant when social groups are highly compatible.

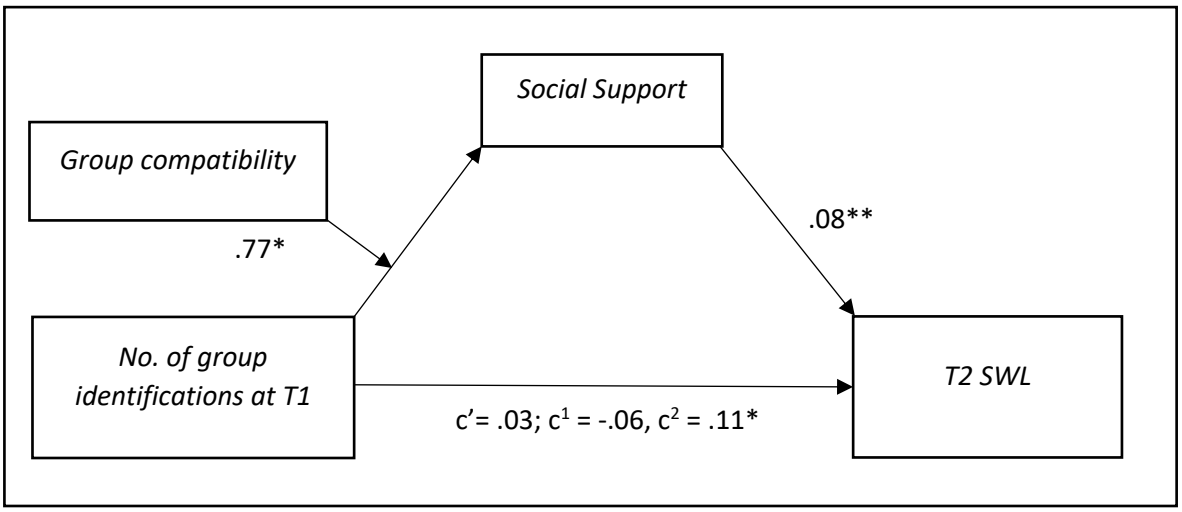

Figure 7. 1. Graphical representation of the model tested to explore the moderating effect of group compatibility on the mediation of social support on the relationship between number of group identifications held at T1 and satisfaction with life at T2.

Note: * *p*< .05; ** *p*< .01

c'= direct effect of T1 number of group identifications on T2 SWL

c^1 = indirect effect of T1 number of group identifications on T2 SWL, through social support at low levels of group compatibility

c^2 = indirect effect of T1 number of group identifications on T2 SWL, through social support at high levels of group compatibility

T1 Group Compatibility Moderating the Mediating Effect of T1 number of group identifications on T2 depression symptoms via T2 Social Support

This moderated mediation model explored whether T2 social support mediated the relationship between T1 number of group identifications and T2 depression symptoms, and whether the path between T1 number of group identifications and T2 social support was moderated by T1 group compatibility (hypothesis 7.6, see Appendix 15). There was a significant interaction between T1 number of group identifications and T1 group compatibility (*b* = .81, *SE*= .32, *t*= 2.54, *p*= .01, *LLCI*= .17, *ULCI*= 1.44), indicating that T1 group compatibility moderated the relationship between the T1 number of group identifications and T2 social support (as described in the moderated mediation model above and shown in Appendix 15).

The direct relationship between T1 number of group identifications and T2 depression symptoms was not significant (*b* = .18, *SE*= .40, *t*= .46, *p*= .65, *LLCI*= -.62, *ULCI*= .99). The conditional indirect effect of T1 number of group identifications on T2 depression symptoms through T2 social support was significant at high levels (+1SD) of T1 group compatibility, (*b* = -.32, *Boot SE*= .20, *Boot LLCI*= -.80, *Boot ULCI*= -.04). However, the relationship was not significant at low levels (-1SD) of T1 group compatibility (*b* = .16, *Boot SE*= .16, *Boot LLCI*= -.11, *Boot ULCI*= .52). The index of moderated mediation for group compatibility was significant (*Index* = -.19, *Boot SE*= .10, *Boot LLCI*= -.45, *Boot ULCI*= -.04). Exploration of the index of moderated mediation shows that this indirect relationship accounts for 19% of the variance in depression symptoms at T2. Thus, the conditional indirect effect of T1 number of group identifications on T2 depression symptoms through T2 social support is only significant when social groups are highly compatible.

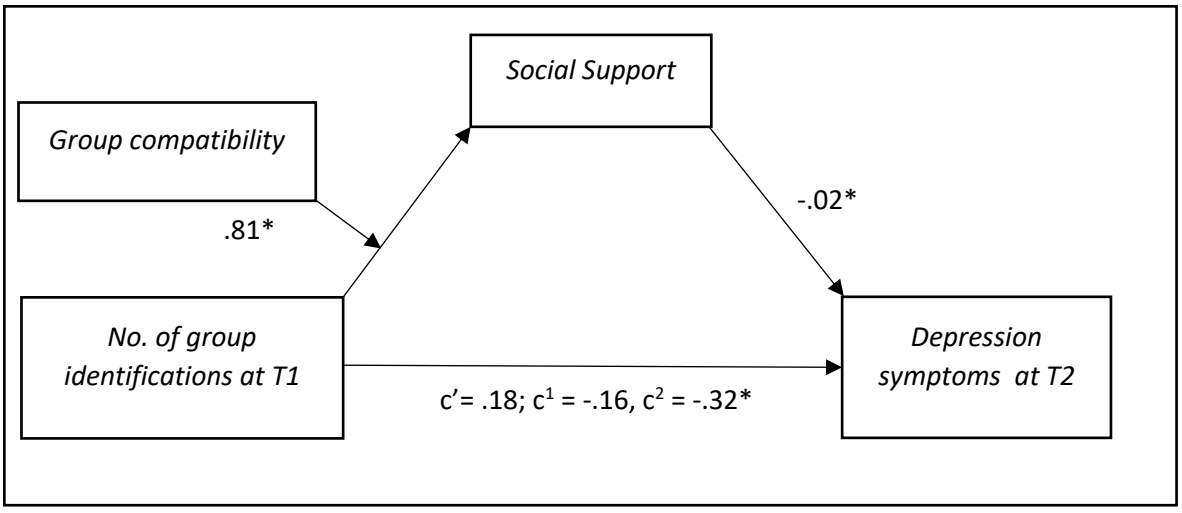

Figure 7. 2. Graphical representation of the model tested to explore the moderating effect of group compatibility on the mediation of social support on the relationship between T1 number of group identifications and T2 depression symptoms.

Note: * *p*< .05; ** *p*< .01

c'= direct effect of T1 number of group identifications on T2 depression

c^1 = indirect effect of T1 number of group identifications on T2 depression, through social support at low levels of group compatibility

c^2 = indirect effect of T1 number of group identifications on T2 depression, through social support at high levels of group compatibility

Summary: T1 Group Compatibility Moderating the Mediating Effect of T1 Number of Group Identifications on T2 disordered Eating Symptoms/T2 anxiety symptoms via T2 Social Support

Two moderated mediation models explored whether T2 social support mediated the relationship between T1 number of group identifications and disordered eating symptoms/T2 anxiety symptoms, and whether the path between T1 number of group identifications and T2 social support was moderated by T1 group compatibility. The relationship between T1 number of group identifications and T2 social support being significantly moderated by high T1 group compatibility, (discussed above, and evidenced in the simple slopes in Appendix 15). However, the index of moderated mediation was non-significant, thus no moderated mediation was present in these two models (see Appendix 16). As such, although high levels of T1 group compatibility moderated the relationship between T1 number of group identifications T2 social support, there was no significant relationship between T1 number of group identifications with T2 disordered eating symptoms or T2 anxiety symptoms through T2 social support at any level of T1 group compatibility (see Table 7.13), thus not supporting hypothesis 7.6.

Table 7. 13. Study 2b Moderated mediation models exploring the relationship between the predictor variables (T1 number of group identifications; change in number of group identifications over time; and recovery identification over time), and T2 mental health and well-being through T2 social support depending on the compatibility of their social groups (after controlling for age, gender, diagnosis and T1 baseline variables).

Predictor variable	Satisfaction with life			Disordered eating symptoms			Anxiety symptoms			Depression symptoms		
	b	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*	*b*	*LLCI*	*ULCI*
T1 number of group identifications → T1 group compatibility → T2 social support												
a (x → m)	-3.37	-6.67	-.07	-3.31	-6.61	-.002	-3.31	-6.62	-.003	**-3.51***	**.33**	**12.74**
w → m	-.69	-1.81	.43	-.72	-1.84	.41	-.71	-1.85	.43	-.72	-1.83	.40
Interaction → m	**.77***	**.14**	**1.40**	**.76***	**.12**	**1.39**	**.76***	**.12**	**1.39**	**.81***	**.17**	**1.44**
b (m → y)	**.08****	**.03**	**.14**	-.28	-.77	.22	-.14	-.33	.05	**-.24***	**-.42**	**-.06**
c' (x → y)	.03	-.20	.26	.10	-2.17	2.37	-.11	-.96	.74	.18	-.62	.99
c^1 (x → m → y, at -1SD of w)	-.06	-.17	.04	.18	-.20	.92	.09	-.06	.38	.16	-.11	.52
c2 (x → m → y, at +1SD of w)	**.11***	**.01**	**.28**	-.34	1.35	.25	-.17	-.54	.04	**-.32***	**-.80**	**-.04**
Change in number of group identifications over time → T1 group compatibility → T2 social support												
a (x → m)	.83	-2.12	3.79	.62	-2.34	3.58	.65	-2.31	3.62	.79	-2.18	3.76
w → m	.55	-.12	1.21	.42	-.25	1.09	.44	-.27	1.15	.52	-.16	1.19
Interaction → m	.24	-.40	.89	.28	-.37	.93	.27	-.39	.92	.24	-.41	.89
b (m → y)	.06	-.0001	.12	.02	-.53	.56	-.08	-.29	.14	-.14	-.34	.06
c' (x → y)	.20	-.02	.42	**-2.27***	**-4.31**	**-.23**	-.52	-1.32	.28	-.72	-1.47	.03
c^1 (x → m → y, at -1SD of w)	.10	-.01	.27	.03	-.83	1.09	-.12	-.48	.19	-.23	-.64	.05
c2 (x → m → y, at +1SD of w)	.13	-.01	.41	.04	-1.20	1.62	-.17	-.64	.30	-.31	-.86	.08
Change in recovery identification over time → T1 group compatibility→social support												
a (x → m)	2.82	-.39	6.03	2.77	-.45	5.99	2.78	-.43	5.99	2.73	-.48	5.93
w → m	.54	-.14	1.22	.46	-.22	1.14	.39	-.33	1.11	.55	-.14	1.23
Interaction → m	-.46	-1.14	.23	-.45	-1.14	.24	-.45	-1.13	.24	-.44	-1.12	.25
b (m → y)	**.07***	**.02**	**.12**	-.16	-.66	.34	-.14	-.33	.06	**-.21***	**-.39**	**-.02**
c' (x → y)	**.18***	**.04**	**.32**	-1.24	-2.55	.07	-.06	-.58	.46	-.24	-.73	.24
c^1 (x → m → y, at -1SD of w)	.08	-.01	.16	-.19	-.71	.65	-17	-.41	.07	-.25	-.53	.02
c2 (x → m → y, at +1SD of w)	.01	-.06	.10	-.01	-.38	.29	-.01	-.20	.17	-.02	-.29	.21

Note: ***p*< .01; * *p*< .05.

Summary: T1 Concealment Moderating the Mediating Effect of Change in Number of Group Identifications Over Time on T2 Mental health/Well-being via T2 Social Support

The next series of analyses tested whether change in number of group identifications over time (between T1 and T2) predicted T2 mental health/well-being though T2 social support, but only for those low in T1 concealment of their disordered eating (hypothesis 7.11). The moderating effect of T1 concealment on the path between change in number of group identifications over time and T2 social support was explored. The interaction between change in number of group identifications over time and T1 concealment was not significant in predicting T2 social support in any of these four moderated mediation models, indicating no moderation, as highlighted in Table 7.12. The index of moderated mediation for the four models show that no moderated mediation, not supporting hypothesis 7.11, and are provided in Appendix 17.

Summary: T1 group compatibility Moderating the Mediating Effect of Change in Number of Group Identifications Over Time on T2 mental health/well-being via T2 Social Support

The next series of moderated mediation models tested whether change in number of group identifications over time predicted T2 mental health/well-being though T2 social support, but only for those with high T1 group compatibility (hypothesis 7.12). First the moderating effect of group compatibility on the relationship between change in number of group identifications over time and T2 social support is explored. The interaction between change in number of group identifications over time and T1 group compatibility was not significant in predicting T2 social support in any of the four moderated mediation models, indicating no moderation, as highlighted in Table 7.13. The index of moderated mediation for the four models showed no moderated mediation, not supporting hypothesis 7.12, (see Appendix 18).

Summary: T1 Concealment Moderating the Mediating Effect of Change in Recovery Identification Over Time on T2 Mental Health/Well-Being via T2 Social Support

This collection of moderated mediation models tested whether change recovery identification over time (between T1 and T2) predicted T2 mental health/well-being though T2 social support, but only for those low in T1 concealment of their disordered eating (hypothesis 7.17). First the moderating effect of T1 concealment on the relationship between change in recovery identification over time and T2 social support was explored. The interaction between change in recovery identification over time and T1 concealment was significant in predicting T2 social support in all four moderated mediation models, as highlighted in Table 7.12, indicating that T1 concealment moderated the relationship between change in recovery identification over time and T2 social support. However, the index of moderated mediation for the four models show that there is no moderated mediation, not supporting hypothesis 7.17, (see Appendix 19).

Despite there being no moderated mediation, T1 concealment was found to be a significant moderator of the relationship between change in recovery identification over time and T2 social support, so this moderation was further explored. There was a significant interaction between change in recovery identification over time and T1 concealment (*b*= -.21, *SE*= .08, *t*= -2.43, *p*= .02, *LLCI*= -.37, *ULCI*= -.04), indicating that T1 concealment of disordered eating was a significant moderator of the relationship between change in recovery identification over time and T2 social support. The effect size for this relationship (f^2= .27) shows that the interaction between change in recovery identification and concealment at T1 explains a medium-sized proportion of the variance in T2 social support. A simple slopes analysis (see Appendix 20) was conducted showing a significant positive relationship between change in recovery identification over time and T2 social support when T1 concealment of disordered eating was low (-1SD), (*b* = 1.47, *SE*= .42, *t*= 3.54, *p*= .001, *LLCI*= .64, *ULCI*= 2.30). This relationship was not significant when concealment of disordered eating was high at T1 (+1SD) (*b* = .45, *SE*= .29, *t*= 1.56, *p*= .12, *LLCI*= -.12, *ULCI*= 1.01). This shows that an increase in recovery identification over time is associated with higher levels of T2 social support,

but only when T1 concealment of disordered eating is low, providing partial support for hypothesis 7.17.

Summary: T1 Group Compatibility Moderating the Mediating Effect of Change in Recovery Identification Over Time on T2 Mental Health/Well-Being via T2 Social Support

When exploring moderated mediation models testing whether change in recovery identification over time predicted T2 mental health/well-being though T2 social support, but only for those with high T1 group compatibility (hypothesis 7.18). First the moderating effect of group compatibility on the relationship between change in recovery identification over time and T2 social support is explored. The interaction between whether change in recovery identification over time and T1 group compatibility was not significant in predicting T2 social support in any of the four moderated mediation models, indicating no moderation, as highlighted in Table 7.13. The index of moderated mediation for the four models show that there is no moderated mediation, not supporting hypothesis 7.18, (see Appendix 21).

Summaries of Longitudinal Moderated Mediation Models

This final section of Study 2b explored a collection of moderated mediations that tested whether the predictor variables (T1 number of group identifications, change in number of group identifications over time, and change in recovery identification over time) predicted mental health/well-being (SWL; disordered eating symptoms; anxiety symptoms; and depression symptoms) at T2 though T2 social support depending on a moderator (either T1 concealment or T1 group compatibility). The first conclusions drawn from these moderated mediations is that T1 number of group identifications did not predict T2 mental health/well-being through T2 social support at any level of T1 concealment, thus not supporting hypothesis 7.5. However, T1 number of group identifications did predict two T2 mental health/well-being variables (SWL and depression symptoms) through T2 social support only for people who reported highly compatible social groups at T1, supporting hypothesis 7.6. T1 number of group identifications did not predict T2 disordered

eating symptoms or T2 anxiety symptoms through T2 social support at any level of T1 group compatibility, therefore hypothesis 7.6 is not fully supported. These moderated mediation models show that the greater T1 number of group identifications predicts greater t2 SWL and fewer T2 depression symptoms social support but only for those who reported highly compatible social groups at T1.

Additionally, change in number of group identifications over time did not predict T2 mental health/well-being through T2 social support at any level of T1 concealment or T1 group compatibility, therefore not supporting hypotheses 7.11 and H7.12. Finally, change in recovery identification did not predict T2 mental health/well-being through T2 social support at any level of the moderating variables (T1 concealment or T1 group compatibility), not supporting hypotheses 7.17 and 7.18. Moderated mediation was not found between change in recovery identification over time and T2 mental health/well-being, but T1 concealment did significantly moderate the relationship between change in recovery identification over time and T2 social support. This moderation showed that increase in recovery identification over time is associated with greater T2 social support, but only for those who report low T1 concealment of disordered eating to their social groups.

7.5. Study 2: Discussion

This current chapter presented Study 2b: the longitudinal exploration of the relationship between group identification and mental health/well-being for participants seeking disordered eating recovery. Study 2 explored the relationship between number of group memberships, (specifically family, friends, a group used for support with disordered eating, and recovery identification) and mental health (disordered eating symptoms, anxiety symptoms, and depression symptoms)/well-being (SWL) over time for people seeking disordered eating recovery. More specifically, Study 2b explored three main relationships: T1 number of group identifications with T2 mental health and well-being; change in number of group identifications over time with mental T2

health and well-being; and change in recovery identification over time with mental health and well-being at T2. This section will bring together both Study 2a and Study 2b findings and discuss how Study 2 addressed thesis objectives 2 and 3 alongside the implications of Study 2.

The relationship between number of group identifications and mental health/well-being for people seeking disordered eating recovery

One of the major findings from Study 2b was that the T1 number of group identifications did not significantly predict any of the T2 mental health/well-being variables as predicted (hypothesis 7.1). However, T1 number of group identifications did predict T2 SWL and T2 depression but only when including T1 group compatibility as a moderator and T2 social support as a mediator. More specifically, greater number of T1 group identifications predicted greater T2 satisfaction with life at through T2 social support, but only for participants with highly compatible T1 social groups. The same relationship was found for depression at T2. This finding, although predicted, does not support the conclusions from Study 1 and Study 2a that group compatibility is not necessarily a problem for people seeking disordered eating recovery (e.g., as participants in Study 1a discussed incompatibility of their groups, but were still happy with their social identity networks). As such, it could be argued that the compatibility of social groups may impact the relationship between group identifications and mental health/well-being, rather than impacting participants' ability to manage their social identity networks (as suggested in Study 1). This conclusion would support previous Social Cure arguments that the compatibility of groups can impact health and well-being throughout a period change (Iyer et al., 2009). However, while no conclusions from Study 2 can be drawn on whether all participants were going through the process of recovering (e.g., some participants may have been seeking recovery but had not yet engaged with their recovery, others may already have identified as recovered), Study 2 highlights that over the period between T1 and T2, greater T1 group compatibility impacted the relationship between greater number of T1 group identifications and T2 mental health/well-being.

The more social support one receives, the better one's mental health (Haslam et al., 2005). However, social support was not a significant mediator without the addition of a moderator as initially predicted. Despite this, social support was a significant mediator of the relationship between number of T1 group identifications, T2 SWL and T2 depression symptoms at high levels of T1 group compatibility. Thus, not supporting hypotheses 7.4, 7.10, and 7.16). It could be argued that social support is not as an important part of disordered eating recovery as originally expected. However, Study 1 and Study 2a both concluded that social support was one of the key components of disordered eating recovery, which mirrors much of the Social Cure literature, as social support is considered an important psychological resource provided by social identities through which health benefits are accrued (Greenway et al., 2015; Haslam et al., 2005; Haslam et al., 2008). Therefore, it cannot be claimed through Study 2b findings that social support alone is an important social attribute for people seeking disordered eating recovery.

However, with the addition of concealment of disordered eating or group compatibility as moderators, social support can have a positive role in the relationship between number of group identifications and mental health/well-being. Arguably, these findings show that social support is more complex than it is currently considered to be within Social Cure, as both Study 1 and Study 2 highlight the importance of concealment and group compatibility in relation to social support. Therefore, to fully understand the benefits of social support in the relationship between number of group identifications and health/well-being for people seeking disordered eating recovery, further investigation is needed into the relationship between social support and concealment as well as the relationship between social support and group compatibility.

The relationship between increase in number of group identifications and mental health/well-being for people seeking disordered eating recovery

One of the main findings within Study 2b is that an increase in number of group identifications between T1 and T2 was associated with greater SWL and lower disordered eating symptoms,

anxiety symptoms, and T2 depression symptoms. These significant relationships support initial conclusions from Study 2a that greater number of group identifications is associated with better mental health and well-being. Suggesting that an increase in group identifications is associated with better mental health and well-being. These findings ultimately support previous Social Cure research claiming that increased number of social groups is good for health and well-being (Haslam et al., 2008; Sani et al., 2015a; Sani et al., 2015b; Steffens et al., 2016). However, Social Cure researchers have argued that rather than increasing the number of group memberships, it is increasing the identifications with these groups that is beneficial for health and well-being (Wakefield et al., 2017). This is the first study to report important Social Cure findings within this population, highlighting the relevance of Social Cure concepts for people seeking disordered eating recovery.

Social Cure researchers have suggested that social identity relevant processes mediate this relationship between identification and mental health/well-being (Wakefield et al., 2017). Study 2 revealed that concealment of disordered eating and group compatibility, respectively, were important moderators to consider when exploring social groups of people in disordered eating recovery, in addition to social support being an important mediator. These moderator and mediator provided greater insight into why an increase in number of group identifications over time was associated with better health and well-being. More specifically, Study 2b found an increase in the number of group identifications over time was positively associated with satisfaction with life at T2 for participants who reported low and high concealment of disordered eating from those social groups. This relationship between increase in number of group identifications over time and satisfaction with life was stronger at lower levels of concealment. Suggesting that being open about disordered eating with one's social groups can positively influence the relationship between increased number of group identifications over time and satisfaction with life. However, concealing disordered eating from these social groups can also positively moderate this relationship between change in number of group identifications and satisfaction with life over time, but this relationship is not as strong. These findings support the conclusions from Study 1 that concealment is complex,

as both being open and concealing disordered eating from social groups can be viewed as beneficial for recovery.

These current findings provide support for a conclusion from Study 2a: that being open with social groups positively moderates the relationship between number of group identifications and SWL (although in Study 2a this relationship with SWL, disordered eating symptoms and anxiety symptoms was only significant at low levels of concealment). As such, it could be suggested that promoting openness to people seeking disordered eating recovery could help maintain their satisfaction with life while they seek recovery. As concealment of disordered eating was only measured for three groups (family, friends, and a group used for support), claims regarding concealment can only be applied to these groups. Despite this, Study 2 provides a novel understanding of how concealment of disordered eating from social groups functions. The groups utilised within Study 2 were often more aware and involved with the disordered eating recovery than other groups in Study 1 (e.g., hobby groups and work colleagues), and could be why being open with them about disordered eating concerns is associated with greater satisfaction with life. As high concealment of disordered eating did also positively moderate the relationship between increase in number of group identifications over time and satisfaction with life it could be argued that concealment of disordered eating could also be promoted to protect satisfaction with life for people seeking disordered eating recovery. Therefore, Study 2 provides necessary knowledge about concealment, as there is a lack of understanding around concealment and disordered eating recovery (Williams et al., 2018). However, concealment of disordered eating still appears to have a complex nature, as both concealing and disclosing can be positive, thus further research is needed to build on Study 1 and Study 2 findings and comprehensively unpack concealment of disordered eating.

Further investigation into the relationship between increased number of group identifications over time and satisfaction with life showed that not only did concealment moderate this relationship but so did group compatibility. Group compatibility was not a significant moderator within the relationship between number of group identifications and mental health/well-being in

Study 2a. However, Study 2b found that an increase in number of group identifications held between T1 and T2 was associated with greater satisfaction with life at T2 for people that reported highly compatible social groups. This moderation was only found for the relationship between an increase in number of group identifications and satisfaction with life, not with disordered eating symptoms, anxiety symptoms, or depression symptoms. Therefore, it can only be claimed that group compatibility positively moderates the relationship between increased number of group identifications and SWL, not mental health, thus limiting the conclusions about group compatibility. However, this finding provides support for the initial predictions and previous conclusions that group compatibility can influence the relationship between number of groups and well-being (Cruwys et al., 2016; Iyer et al., 2009).

The relationship between increased recovery identification over time and mental health/well-being for people seeking disordered eating recovery

Additionally, within Study 2b it was found that an increase in recovery identification was associated with better T2 satisfaction with life and fewer T2 disordered eating symptoms, addressing thesis objective 3. Thus, supporting initial conclusions (hypothesis 7.13). As such, it could be argued that increasing recovery identification is beneficial for the health and well-being of people seeking disordered eating recovery. This is the first longitudinal investigation into the recovery identification. Not only do these findings highlight the importance that identifying with others can have for people seeking disordered eating recovery, but they also provide support for SIMOR (Best, Beckwith et al., 2016). Previous Social Cure research has shown that identification with similar others (e.g., others seeking recovery) can be beneficial for people seeking recovery as stronger recovery identification is associated with better health and well-being (Cruwys et al., 2020; Mawson et al 2015). People with stronger recovery identities have stronger recovery efficacy, are more dedicated to their recovery, and are more successful in their recovery (Beckwith et al., 2019; Dingle et al., 2019; Taylor et al., 2019). It could be argued that development of an identity with

others in disordered eating recovery, not necessarily a physical/online group, and then increasing the identification with this group would be beneficial for people seeking disordered eating recovery to protect their mental health and well-being over time.

Study 2b findings showed concealment significantly moderated the relationship between increased recovery identification over time and mental health/well-being. More specifically, an increase in recovery identification over time was associated with greater T2 satisfaction with life but only for participants that reported low levels of T1 concealment of disordered eating. It was also found that an increase in recovery identification over time was associated with fewer T2 depression symptoms for participants who reported low and high levels of T1 concealment, but this relationship was stronger for those low in T1 concealment. These significant moderation models again show that concealment/disclosure of disordered eating has an important role to play for people seeking disordered eating recovery. As previous Social Cure literature has highlighted, identification with others seeking recovery can be beneficial for the recovery process (Beckwith et al., 2019; Cruwys et al., 2020; Dingle et al., 2019; Taylor et al., 2019). However, this is the first investigation to highlight that not only is recovery identification important for mental health and well-being, but that being both open and concealing the disordered eating from social groups can be beneficial to this relationship.

One of the main conclusions from Study 1 was that concealment of disordered eating was intertwined with social support. Moreover, this important relationship was found to be more complex than initially expected. This finding was further supported by Study 2a, where greater number of group identifications were associated with greater social support for both those low and high in concealment of disordered eating. This again highlights not only that there is an important relationship between concealment and social support but that this relationship is complex, as greater number of group identifications was associated with greater social support at both high and low levels of concealment. When exploring this relationship in Study 2b, there was again a significant relationship, however, within Study 2b the relationship between concealment and support was found when exploring T1 concealment as a moderator of the relationship between

increased identification with others in recovery over time and T2 social support. More specifically, an increase in recovery identification was associated with greater social support, but only for people who reported low levels of concealment. Therefore, Study 2b continues to support the conclusion that concealment and social support are intertwined social identity-related components for people seeking disordered eating recovery, as found in Study 1 and Study 2a. However, Study 2b found a less complex relationship than seen in Studies 1 and 2a, as only low levels of concealment was a significant moderator of the relationship between increased identification with others in disordered eating and social support/mental health/well-being, suggesting that being open with social groups (family, friends, and groups used for support with disordered eating) is essential for the benefits of increased recovery identification and social support to be experienced. This supports previous research that being open about disordered eating is important for recovery (Bowlby et al., 2015). However, as findings across Study 2b suggests that both being open and concealing disordered eating is beneficial for people seeking disordered eating recovery, it could also be argued that concealment needs to be further explored in order to develop these novel findings regarding concealment, recovery identification and mental health/well-being over time.

7.6. Study 2: Conclusions

To conclude, Study 2 study provides a novel exploration of the relationship between group identifications, and mental health/well-being for people seeking disordered eating recovery. It is one of the first studies to explore group identifications within disordered eating recovery, and the first longitudinal study to focus on recovering from disordered eating. The findings therefore provide initial insights into how social identities could predict the mental health and well-being of people with disordered eating concerns (addressing thesis objective 3). The main hypothesis (that number of group identifications would positively predict mental health/well-being over time) was significant in Study 2a but not Study 2b. However, Study 2b provided two alternative perspectives: that increased number of group identification over time and increased identification with others in disordered eating recovery over time had beneficial relationships with well-being. It could be

argued that rather than focusing on the number of group identifications people possess, research should target the maintenance and development of new group identifications for people seeking disordered eating recovery.

Additionally, increased recovery identification had a positive relationship with mental health/well-being in Study 2b. Subsequently, it can be suggested that future research should focus on the role of recovery identification and maintaining this over time, rather than on the number of group identifications within the disordered eating recovery context. One of the most notable findings was the moderating role of concealment of disordered eating, providing support for conclusions from Study 1: that concealment is a complex (and poorly understood) issue for those wishing to recover/who have recovered from disordered eating. Finally, Study 2 showed that not only was concealment intertwined with social support, but group compatibility also moderated the relationship between number of group identifications and social support. This was the first study to find both concealment of disordered eating and group compatibility to be important moderators of the relationships between number of group identifications, social support, and mental health/well-being. Study 2 provides greater understanding as to why number of group identifications are associated with mental health/well-being for people seeking disordered eating recovery.

The aim of this thesis was to explore social identities, health, and well-being for people who are recovering/recovered from disordered eating. Disordered eating includes both sub-clinical and clinical thresholds (Cruwys et al., 2016). However, due to the attrition experienced between the two time points in Study 2, people who had a diagnosis were more likely to complete the whole study, meaning that attrition bias may have impacted the longitudinal data (Nunan, Aronson, & Bankhead, 2018). Specifically, it could be argued that the longitudinal data involved a greater proportion of participants with a clinical diagnosis compared to the cross-sectional sample, which could have influenced the findings from the longitudinal analysis (Ahern, & Le Brocque, 2005). Therefore, it was important to explore both the cross-sectional and longitudinal aspects of Study 2, as the loss of sub-clinical participants could affect the results.

Additionally, there were key differences in the findings between the cross-sectional and longitudinal analyses. Study 2a (cross-sectional analyses) showed that the relationship between number of group identifications and health/well-being (SWL, disordered eating symptoms, and anxiety symptoms), was only significant when concealment was low. The relationship between number of group identifications and health/well-being was positively mediated by social support. Finally, concealment of disordered eating moderated the relationship between number of group identifications and social support, and then social support mediated the relationship between number of group identifications and health/well-being (SWL and depression symptoms). The first finding replicated from Study 2a in Study 2b was that concealment moderated the relationship between change in number of group identifications over time and SWL at T2. However, the other significant Study 2a findings were not found in Study 2b. Therefore, due to the differences in findings across Study 2, it was essential to explore and present all the analyses from Study 2 to provide a well-informed understanding of the relationship between number of group identifications and health/well-being. Using both cross-sectional and longitudinal analyses, Study 2 thus provides a novel and rigorous exploration of the relationship between group identifications and health/well-being for people in recovery from disordered eating. Therefore, these initial explorations into social groups, concealment, group compatibility, social support, and mental health/well-being for people seeking disordered eating recovery can be considered the foundations from which future research to continue developing an understanding of how number of group identification impact disordered eating recovery.

8. General Discussion

8.1. Chapter overview

This thesis explored the relationship between social identities and disordered eating recovery. This relationship was investigated through the application of an adapted exploratory sequential mixed-methods approach (as presented in Figure 8.1) containing two empirical studies: presented in Chapters 4 to 7. The first aim of Study 1 was to address thesis objective 1: explore what disordered eating recovery means to those that currently identified as in recovery/recovered from disordered eating (Chapter 5). The second aim of Study 1 was to address thesis objective 2: investigate the role of social identities within disordered eating recovery (Chapters 4 and 5). The second study had two distinct components: a cross-sectional analysis and a longitudinal analysis. The cross-sectional component of Study 2 (Study 2a) examined the relationship between group identifications (specifically: family, friends, a group used for support, and others in disordered eating recovery), mental health (disordered eating symptoms, anxiety symptoms, and depression symptoms), and well-being (satisfaction with life) as reported in Chapter 6. Finally, the longitudinal analysis of Study 2 (Study 2b) focused on exploring the changes between number of group identifications and mental health/well-being variables over the course of a six-month period (Chapter 7). Therefore, Study 2 addressed thesis objective 3. The aim of this current chapter is to integrate the findings from Studies 1 and 2 as per the mixed method design in Chapter 3 (Figure 3.1), focusing on how the quantitative findings advanced the initial qualitative conclusions regarding the role of social identities within disordered eating recovery. This chapter will also highlight the original contribution to knowledge this thesis provides, discuss the theoretical and practical implications of the current findings, the strengths, and limitations of this thesis, and present a proposal for future research directions.

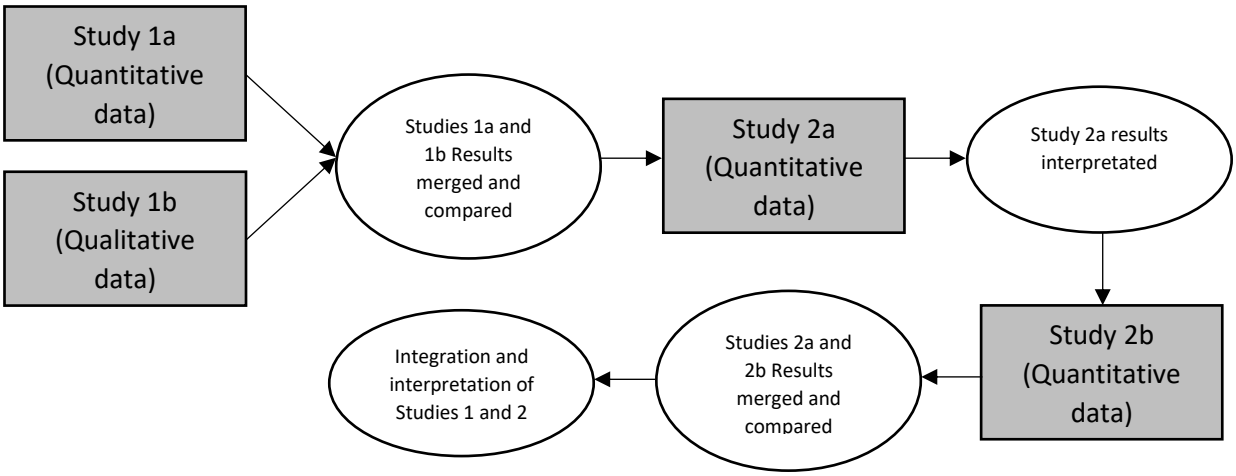

Figure 8. 1. The mixed method design implemented in this thesis: a combination of concurrent and exploratory sequential design of this thesis. Adapted from Creswell & Clark (2017)

8.1.1. The main aims and objectives of the thesis

The overarching research question of this thesis was:

What is the relationship between social identities and disordered eating recovery?

The main objective of this thesis was:

To investigate social identity change throughout disordered eating, with a focus on the process of disordered eating recovery.

Additional objectives to address the overall research question included:

Thesis objective 1: Explore what disordered eating recovery means to those going through this recovery process?

Thesis objective 2: Investigate the composition of social groups/identities and social identity networks throughout disordered eating recovery?

Thesis objective 3: Explore the relationship between social identity changes, disordered eating symptomology and health/well-being over time?

8.2. Integration of the key qualitative and quantitative findings

This thesis explored the relationship between social identities and disordered eating recovery, through both qualitative and quantitative methods. It represents the first series of studies to

investigate social identity changes and mental health/well-being throughout disordered eating recovery. The relationship between social identities and disordered eating has previously been explored, however, research has mainly focused on how social identities aid in the development and maintenance of disordered eating (e.g., management of ED identity; Giles, 2006, Rich, 2006, through fostering a collective illness identity; Koski, 2014). Research investigating social identities and disordered eating recovery is sparse and has either utilised a support group identity (McNamara & Parsons, 2016) or suggested a variety of groups that could be important (e.g., family, friends, and recovery peers; Ison & Kent, 2010). This present research explored the nuances of social identities (e.g., concealment of disordered eating, social support, identification, and group compatibility) during disordered eating recovery and how they could aid or hinder recovery efforts. Therefore, the research progresses the understanding of social identities and disordered eating recovery. Therefore, this body of work not only offers the first in-depth exploration of social identities in disordered eating recovery, but also further develops our understanding of the relationship between social identities and mental health/well-being for people in/seeking disordered eating recovery. As per the overall thesis design: a fully integrated convergent study in combination with an exploratory sequential design (as initially discussed in Chapter 3), it is essential to integrate the qualitative and quantitative findings together to understand how the quantitative findings connect to and develop the initial qualitative conclusions (Creswell & Clarke, 2017). This integration of key Study 1 and Study 2 findings is the final component of the mixed method design (Figure 8.1) and will be the focus of this section. The main conclusions of each component are synthesised within Table 8.1. (Creswell & Clark, 2017).

Table 8. 1. Social identities, disordered eating recovery and mental health/well-being: Joint data display of key qualitative and quantitative findings.

Study 1 (Qualitative and Quantitative findings)	Study 2 (Quantitative findings)	Mixed methods interpretation
Social groups have an important role in recovery.	Number of group identifications (at T1 & T2) is linked to mental health and well-being	Not only was having social group memberships important in recovering from disordered eating (Study 1b), but Study 1a clearly showed that participants belonged to a variety of groups (e.g., family, recovery friends, work friends, and opinion-based groups). The more social group memberships a participant had the weaker their disordered eating symptoms were (Study 2a). Also the more social group memberships a participant had, the better their mental health/well-being (Study 2a).
Social groups change over the recovery process.	Increase in number of group identifications (between T1 & T2) is associated with better mental health and well-being.	Retrospectively, participants reported their social groups had changed over the course of their disordered eating recovery. Specifically the number of social group memberships they had since entering recovery from their disordered eating had increased (Study 1b). Over a six-month period, an increase in number of social groups identifications was associated with better satisfaction with life, lower disordered eating symptomology, and lower depression symptoms (Study 2b).

Disordered eating recovery was: 'normality'. Being able to function 'normally' without the disordered eating symptoms dominating their lives.	Increase in identification with others of disordered eating recovery (between T1 & T2) was linked to better mental health and well-being.	Ultimately, participants recovering/recovered from disordered eating wanted 'normality' for their recovery. Where they could interact with their social world without their former disordered eating symptomology negatively impacting them (Study 1b). Increased identification with others in disordered eating recovery was associated with better satisfaction with life and lower disordered eating symptomology (Study 2b).
Selective disclosure of disordered eating is complex: disclosing and concealing about disordered eating with social groups were both positive and negative for recovery.	Both high and low levels of concealment of disordered eating had significant moderating effects (in both Study 2a and 2b).	Active engagement in choosing what groups to conceal their disordered eating from was an important part of maintaining and recovering from disordered eating. Disclosing disordered eating/recovery to some groups strengthened their membership of the group and concealing their disordered eating could also be positive – suggesting that concealment of disordered eating is complex. Ultimately, both concealing and disclosing can be beneficial for the person recovering (Study 1b). Both high and low levels of concealment about disordered eating to social groups moderated the positive relationship between increased identification with others in disordered eating recovery, and mental health/well-being (Studies 2a and 2b).
Social support is important for recovery and intertwined with	Perceived social support for recovery (at T1 & T2) mediated	The support provided by social groups throughout disordered eating recovery was important for the person recovering. Both direct and indirect social support

disclosure/concealment of disordered eating.	the relationship between number of group identifications and mental health/well-being.	was considered important for achieving their 'normality' for their recovery (Study 1b). Not all groups knew about disordered eating but were still supportive of the person recovering more generally. Social support significantly mediated the relationship between number of social group identifications, satisfaction with life, and depression symptoms (Study 2a). The relationship between group identifications and social support was moderated by concealment (both high and low levels) of disordered eating (Study 2b). Ultimately, showing support is important, but has an important relationship with concealment of disordered eating.

The first element of Study 1 utilised online Social Identity Mapping (oSIM: Bentley et al., 2019; Cruwys et al., 2016), a quantitative tool to explore the nature of social identity networks for those identifying as recovering/recovered from disordered eating (Study 1a: Chapter 4). As no prior knowledge existed about the social identity networks of people in disordered eating recovery, oSIM provided essential information pertaining to the composition of the social identity networks of people in disordered eating recovery. Enabling the researcher to develop initial understandings of the social identity networks of those in disordered eating recovery. The social identity networks described in Study 1 were complex and varied, containing a mix of 10 group types (i.e., family, friends, hobbies, and work colleagues) with networks containing both positive and negative social groups. The quantitative oSIM data showed social identity networks contained between three to fifteen groups and had a mixture of supportive and unsupportive groups that varied in their importance. Ultimately, all participants were happy with their social identity networks, even with incompatible and unsupportive groups. Qualitatively, the visual elements of oSIM were perceived positively, as they clearly highlighted the groups and participants believed they had more groups through creating an oSIM than prior to this. Finally, through the qualitative element of oSIM it was remarked that social identity networks would have been different, considerably less positive (e.g., not being representative and less group memberships), when in the development and/or maintenance of disordered eating. Through the combination of the quantitative and qualitative oSIM findings it can be concluded that social identity networks are varied and unique for people in disordered eating recovery.

These social identity networks are not completely positive in recovery (e.g., still containing unsupportive, incompatible groups, or groups that participants did not deem positive to belong to), but they are different from what they would have been like during development and/or maintenance of disordered eating. It was reported that the social identity networks currently held in disordered eating recovery contained more groups than when actively managing the disordered eating, suggesting positive social changes are experienced throughout disordered eating recovery. To build upon the findings from Study 1, Study 2 explored the relationship between group

identifications and mental health/well-being for people seeking disordered eating recovery. Initial findings from Study 2a, the cross-sectional analysis, found that the more group identifications reported, the better mental health/well-being for people seeking disordered eating recovery was. This was further supported by Study 2b: increases in number of group identifications over time predicted better T2 satisfaction with life (SWL). Reinforcing the claim that during disordered eating recovery people's social groups increase and that these are beneficial for mental health/well-being.

Participants' reflections and perceptions of their social worlds throughout their recovery in Study 1 (Chapter 5) provided further support for the claim that changes to the social world are experienced throughout the recovery process, even once recovered. The recovery process not only impacted the person seeking recovery, but also their social groups. Through the person seeking disordered eating recovery going through the recovery process alongside their social groups the ties to these maintained groups became stronger. Often new groups were formed in recovery that were uninvolved with recovery efforts. As initially highlighted within Chapter 4, these were seen to aid in the development and maintenance of the 'normality' participants sought for their recovery. Some of the newly developed groups were involved with recovery, and these groups were often ED recovery-based groups. These were supportive as the ingroup members did not judge them, despite knowing all about the disordered eating due to their shared experiences. Therefore, through this qualitative element of Study 1, the context behind why social groups, as discussed in oSIM (Chapter 4), were maintained or how new groups can be supportive without knowing about the disordered eating was established.

The qualitative component of Study 1 (Chapter 5) found that social identity networks were intertwined with the recovery process, as recovering from disordered eating was not focused on functioning 'normally' but centred on being able to engage with 'normal' everyday events. An important component of Study 1 was discussions regarding selective disclosure, which was complex and dictated by contextual factors (e.g., whether it is pertinent for a group that is currently unaware of their disordered eating history to become aware of it to provide support). All participants at some point throughout their recovery had actively engaged in choosing when and

who they disclosed their disordered eating to. Through Study 1 it appears that selective disclosure is initially used to hide the disordered eating but through the recovery process its utility changes to a form of protection of the 'normality' sought for recovery.

As selective disclosure was a novel and central component of Study 1 it was an important to explore how the concealment or disclosure of disordered eating to social groups could impact on the relationship between number of group identifications and mental health/well-being (Study 2a; Chapter 6 and Study 2b; Chapter 7). Only when concealment was low (i.e., being open with social groups about disordered eating) did it moderate the relationship between number of social groups, mental health (disordered eating symptoms), and well-being (SWL; anxiety and depression symptoms). Again, only when concealment of disordered eating was low did it moderate the relationship between an increase in number of group identifications over time and T2 SWL (Section 7.3.6). Therefore, Study 1 highlighted that selective disclosure was complex as there were benefits to both concealment and disclosure, but it can be argued that an increase in number of group identifications only predicts mental health and well-being when the person seeking recovery is open with those groups about their disordered eating.

Not all social identity networks in Study 1 contained a group directly associated with disordered eating recovery. However, it was considered important to explore identification with others in recovery in Study 2, due to the importance of the ED-recovery groups in Study 1 and in previous research (McNamara & Parsons, 2016). Study 2b found that an increase in recovery identification over time predicted reduced disordered eating symptoms and SWL, supporting conclusions that identification with others seeking recovery could be beneficial for recovery progress (Ison & Kent, 2010). As with the relationship between increase in number of group identifications over time and T2 SWL, when concealment was low (i.e., being open with others about disordered eating) an increase in recovery identification over time significantly predicted better T2 mental health and well-being. Therefore, it can be concluded that not only is increased identification with others better for mental health and well-being, but this relationship is enhanced for those who are open with their social groups about their disordered eating.

Social support was a key part of Study 1 as participants remarked how being effectively supported was important for them achieving the 'normality' sought in their recovery. Therefore, exploring social support further in Study 2 was crucial. Study 2 findings show that social support positively mediated the relationship between number of group identifications, SWL and depression symptoms, respectively (Study 2a; Chapter 6). Additionally, in Study 1 it was found that both social support and disclosure were intertwined and both more complex than initially expected. As such, Study 2 investigated this further by exploring whether concealment of disordered eating would moderate the relationship between number of group identifications and social support (Section 6.5.5 and Section 7.3.6). The complex relationship alluded to through the quantitative and qualitative findings from Study 1 were supported by the cross-sectional and longitudinal analyses. When concealment was high and low the number of group identifications was positively associated with social support, but the effect was stronger at low levels (i.e., being open about disordered eating). As such, it can be concluded that there is an important but complex relationship between group identifications, concealment of disordered eating, and social support for people seeking disordered eating recovery. However, even when concealment moderated the relationship between number of group identifications and support, support did not mediate the relationship between number of group identifications over time and mental health/well-being (Chapter 7). Therefore, the conclusions regarding the importance of social support from Study 1 and Study 2a cannot be fully supported by Study 2b. However, as both direct support (e.g., encouragement to maintain recovery) and indirect support (e.g., being generally supportive of the person recovering but have no knowledge of the disordered eating) were perceived as beneficial for disordered eating recovery by participants in Study 1, it could be argued that a more complex measure of social support that focuses on both indirect and direct support for disordered eating recovery is needed.

It can be concluded that the quantitative element of Study 1 provided an initial understanding of the social identity networks held by those in disordered eating recovery. The addition of the qualitative component of Study 1 provided the contextual information that could not be generated through the oSIM quantitative information alone. Through both the quantitative and qualitative

elements of Study 1, the researcher established that not only are social groups an important part of disordered eating recovery, but hints to why they are important and how they impact recovery. Through Study 2 it was evidenced that increases in group identifications over time is associated with better mental health and well-being for people seeking disordered eating recovery. In addition to the importance of an increase in group identification, an increase in identification with recovery is associated with better well-being. Finally, the role of social support (as a mediator) and concealment (as a moderator) significantly impacted the relationship between increases in social identities and/or increases in recovery identification over time, and mental health/well-being. There are novel findings discussed throughout this section, and it is important to not only explore where they sit with the current disordered eating literature and the Social Cure literature, but it is also important to explicitly identify how these findings further current understandings of both disordered eating recovery and the Social Cure to establish the original contribution of this thesis. As such, the next section will explore the original contributions provided by this body of work.

8.3. Original contribution to knowledge

The following section will outline the four key original contributions of this research to the literature: (1) the composition of social groups and social identity networks; (2) establishment of the 'uninvolved' but supportive group; (3) the nature of disclosure/concealment of disordered eating; and (4) the applicability of SIMOR to disordered eating recovery. Through these four highlighted original contributions, this research clearly provides a greater understanding of what disordered eating recovery is and the SIAH processes that aid recovery maintenance.

To the researcher's knowledge, this thesis presents the first two studies that not only investigate the social groups people in disordered eating recovery belong to, but also the composition of these groups and the wider social identity networks. Previous research has identified that social groups could be beneficial for people seeking disordered eating recovery (e.g., family and friends: Ison & Kent, 2010; ED-recovery peers: McNamara & Parsons, 2016). However,

this current work is the first to show that people in disordered eating recovery belong to a wide variety of groups that can be beneficial for disordered eating recovery (e.g., work friends, hobby groups, and demographic groups) extending previous knowledge of social groups and disordered eating recovery. The current research showed that the groups that may benefit recovery and recovery maintenance are different to those identified in previous research (Ison & Kent, 2010).

This thesis also explored the composition of social identity networks and the groups within those networks. Specifically, in Study 1 the: importance; positivity; representativeness; contact; and recovery support, in addition to the compatibility and similarity of participants social groups. Through participant interviews, it was evident that the composition of social groups is complex. For example, a group does not need to be high on all those features to be important/viewed positively. Equally, even if groups were considered incompatible, it did not stop participants being happy with their social identity networks. Researching the make-up of social groups and social identity networks is an important step in developing a thorough understanding of the role social groups can have in disordered eating recovery. As previous research has explored the make-up of social groups (e.g. the positivity of group membership, how representative the person felt of their groups, and the incompatibility of groups) within other populations (e.g., community samples, students, people at risk of social isolation: Cruwys et al., 2016; new mothers, retirees: Bentley et al., 2019), this research, specifically Study 1, highlights the importance of understanding the composition of social groups to aid the knowledge development regarding the relationship between social groups and disordered eating recovery. Therefore, this research not only extends previous knowledge but provides an initial understanding about the composition of social groups and social identity networks of people seeking/ in disordered eating recovery.

As this work is the first to explore the make-up of social groups and disordered eating recovery, it is the first to establish the presence of the 'uninvolved' group. This 'uninvolved' group appears to be an important but complex group within the recovery process. More specifically, social support was considered an important component of social groups throughout this research, it was a key focus during the oSIM task, the interviews, and within Study 2. One of the novel

findings from the oSIM quantitative data was the reliance on the midpoint of a scale to represent perceived groups support for recovery. However, only through the qualitative elements of Study 1 was the context behind the use of the midpoint established and highlighted an uninvolved but supportive group. The uninvolved groups often had no knowledge of the disordered eating recovery or were aware but not directly involved with recovery efforts. Despite having no direct connection to recovery efforts, these uninvolved groups were considered supportive, not of the recovery but in enabling participants achieving the 'normality' desired for their recovery. Through this research it can be argued that not all social groups need to be aware of or involved in the disordered eating recovery process, but they need to enable the person recovering to enact their 'normal' life as this will aid their recovery. Again, this adds to our understanding of what disordered eating recovery is and how this recovery is achieved and maintained.

Before conducting this research, ED researchers suggested that being open with others is important and beneficial for recovery (Bowlby et al., 2015), but there was a lack of research into the nature of disclosure/concealment about disordered eating by those in/seeking disordered eating recovery (Williams et al., 2018). Therefore, this thesis was the first to establish the nature of disclosure and concealment throughout disordered eating recovery. Concealment and disclosure of disordered eating from social groups were both found to have an important role within disordered eating recovery. Participants concealed their disordered eating from 'uninvolved' group and yet these groups were still perceived as supportive and positive for disordered eating recovery. Not only was concealment perceived as positive for recovery by participants, but concealment also positively moderated the relationship between group identifications and mental health/well-being. As such, it can be argued that concealment of disordered eating from social groups can not only be beneficial for recovery but also the mental health/well-being of people in/seeking disordered eating recovery.

Disclosure of disordered eating to social groups was also perceived as positive and important for disordered eating recovery, suggesting that disclosure is also beneficial for recovery, thus supporting previous conclusions (Bowlby et al., 2015). Additionally, the relationship between group

identifications and mental health/well-being was stronger for those who disclosed their disordered eating to their social groups than those who did not. Therefore, it can be suggested that being open with social groups is important for disordered eating recovery. Overall, the current research has established that while disclosure of disordered eating can be positive for recovery, as suggested in previous work (Bowlby et al., 2015), concealing disordered eating can also be positive for recovery. It can be suggested that the complexity of disclosure and concealment provides more insight into how people in disordered eating recovery achieve and maintain their recovery status. As such, the researcher provides important findings establishing that the nature of disclosure and concealment of disordered eating from social groups is complicated and does not completely support current perceptions of disclosure and concealment within disordered eating recovery.

Finally, as little work had previously explored the nature of social groups throughout disordered eating recovery, this thesis was the first to establish that a social identity-related process occurs alongside recovery (see Figure 5.1). This social identity-related process highlighted that over the course of disordered eating recovery, participants lost social groups, maintained supportive groups, and gained new groups that aligned with their recovery. The process of losing, maintaining, and gaining social groups is one of the core underpinnings of SIMOR (Best, Beckwith et al., 2016). Due to the lack of research into the relationship between social groups and disordered eating recovery, there is no comprehensive understanding of how social groups and/or social identity networks may change over the course of recovery. Therefore, this thesis work establishes an initial understanding of social groups and disordered eating that aligns with SIMOR. As such, it can be argued that not only does this research provide a necessary understanding of the relationship between social groups and disordered eating recovery, but also provides important theoretical development by supporting the applicability of SIMOR in an area other than addiction recovery.

8.4. Theoretical considerations

As highlighted in the previous section, through the combination of qualitative and quantitative methods, this current work has addressed many of the gaps within the disordered eating and Social Cure literature, initially highlighted throughout Chapter 1 and Chapter 2. However, this section will focus directly on how each of the key findings from this thesis not only support current perspectives, held in both disordered eating literature and Social Cure literature, but how and where they extend this understanding. This current section will also highlight how the present research expands our understanding of disordered eating recovery, specifically our knowledge of disordered eating recovery and the process by which disordered eating recovery occurs and is maintained.

8.4.1. Disordered eating literature considerations

As highlighted in Chapter 1, there is a lack of consensus throughout the disordered eating literature on whether a transdiagnostic approach to disordered eating is appropriate and that the focus is on the underlying commonality of over-evaluation of weight and shape (Fairburn et al., 2003). A transdiagnostic approach has been suggested, but a considerable body of work still continues to explore specific ED diagnoses (Abbate-Daga et al., 2013; Dahlgren & Rø, 2014; Darcy et al., 2011, Franko et al., 2018; Westmoreland et al., 2016). However, this thesis utilised samples containing both those with and without an ED diagnosis, and no differences in terms of their experiences of disordered eating recovery and their experience of group identifications and mental health/well-being were found. As such, support for the utilisation of the transdiagnostic approach is provided. However, the current research approached disordered eating from a spectrum perspective, in that disordered eating represents all concerns about unhealthy eating thoughts and behaviours, from sub-clinical (i.e., excessive dieting) through to clinical EDs (i.e., AN and BN). The conclusion from this current body of work is that there were no differences across the disordered eating spectrum within this study in terms of their recovery, social groups, and mental health/well-being. It can be argued that when exploring disordered eating it is not only appropriate to explore

the whole spectrum of disordered eating, but the findings can be applicable to a wider variety of populations, as opposed to being directly focused on the more severe end of the spectrum.

Another gap in the disordered eating literature is a definition of what disordered eating recovery is (Bardone-Cone, Hunt, & Watson, 2018). Research has highlighted that there are central components that need to be addressed for recovery to be deemed successful (i.e., physical; Hay et al., 2014; Kaplan et al., 2009; Rance et al., 2017, psychological; Federici & Kaplan, 2008, Noordenbos, 2011, Noordenbos & Seubring, 2006, Vanderlinden et al., 2007, and social; Bardone-Cone et al., 2010, Darcy et al., 2010, De Vos et al., 2017, Lindstedt et al., 2018, Pettersen & Rosenvinge, 2010). Extensive research has attempted to determine a universally accepted definition of ED recovery and disordered eating recovery (Bardone-Cone et al., 2010; Couturier & Lock, 2006; Khalsa, Portnoff, McCurdy-McKinnon, & Feusner, 2017; Williams, Watts, & Wade, 2012), but to date there is no conclusive support behind a comprehensive definition (Wade & Lock, 2019). It was important for this thesis to investigate what disordered eating recovery means to those going through the recovery process to best expand on the understanding of what disordered eating recovery is and how recovery is achieved and maintained. As highlighted by the participants', disordered eating is a complex, on-going process, supporting previous conclusions on recovery (Bohrer et al., 2020). However, the current body of work extends the meaning behind disordered eating recovery for people seeking it, as 'normality' was the central desire for recovery, more specifically that the ability to function 'normally' within social situations was key. The discussions throughout Study 1 suggest the 'normality' sought for recovery is not necessarily a return to their 'normal' life before their disordered eating struggles, but a 'new normal'. This 'new normal' is not centred around the absence of disordered eating behaviours and thoughts, but how a reduction in disordered eating symptoms enable the engagement in a life deemed consistent with the 'normal' they desire. This suggests that social recovery is not only an essential element of disordered eating recovery (De Vos et al., 2017), but that disordered eating recovery is itself inherently social.

In addition to suggesting that desires for recovery are socially focused, the findings throughout this thesis show that social groups are intertwined with the recovery process. Not only are social

groups important motivators for recovery, but they also enable the 'normality' people seeking recovery desire. An important role has been suggested for social identities within disordered eating recovery (Ison & Kent, 2010; McNamara & Parsons, 2016), however, this is the first body of work that shows the central role of social identities in disordered eating recovery, that recovery is intertwined with social identities. Therefore, this thesis not only explores the social elements of disordered eating recovery but addresses the social context behind disordered eating recovery which is centred around social identities. Social recovery has been suggested within previous work on disordered eating recovery, it is often considered an additional component of recovery (Kenny et al., 2019). As previously suggested, research reported in this thesis found a core element of disordered eating recovery is becoming more socially connected (Linville et al., 2012, Malson et al., 2011). However, this is the first body of work to show that for people seeking disordered eating recovery an increase in social identities is good for mental health and well-being. Further providing understanding of the role social identities can have on recovery occurring and being maintained.

It is suggested that when a definition of disordered eating recovery is agreed upon within disordered eating literature, that social identities are considered a central component and a mechanism for recovery. More specifically, it can be argued that a definition of disordered eating recovery needs to include not only physical and psychological recovery, but also social recovery, which from this research is based around the development and increased identification with social groups, as social groups not only aid disordered eating recovery but also help sustain it. It is also concluded that theoretical understandings of disordered eating recovery should include improvements in general mental health and well-being (i.e., SWL) as these were positively impacted by social identities. Thus, allowing for greater understanding of how social identities could influence the maintenance of disordered eating recovery.

As highlighted throughout the previous section, one of the novel contributions of this current work is the importance of concealment of disordered eating from social groups. Previous work is limited in establishing the role of concealment within disordered eating recovery (Williams et al., 2018). Reportedly, when living with an ED, efforts will be made to conceal one's behaviours from

their social world (Bardone-Cone et al., 2010). Concealing disordered eating could be because people with disordered eating believe others will try and force them to recover, which they do not want at that time (Williams et al., 2018). Previous conclusions were that disclosing to others is beneficial for recovery efforts (Bowlby et al., 2015). This is supported by part of Study 1, as openness with others about disordered eating could be positive for recovery maintenance. However, the nature of concealment for people seeking disordered eating recovery is more complex than is currently suggested in the literature.

This current body of work showed that concealment was a significant feature of disordered eating recovery, however there was no consensus on whether concealment or disclosure of disordered eating was better for recovery. Initial findings (Study 1) highlighted that choosing whether to disclose or conceal disordered eating was dependant on a variety of factors, such as the relationship to the group (e.g., joining the group after entering recovery), the social context (i.e., not requiring disordered eating related support from a group) and the attitudes held by the group (i.e., being highly judgemental of others). However, through Study 2, disclosing disordered eating to social groups was associated with better mental health and well-being, therefore not replicating the complex nature of concealment suggested through Study 1 but supporting previous conclusions that being open is beneficial for the person seeking recovery (Bowlby et al., 2015). There is no conclusive understanding of the nature of concealment established throughout this thesis, as the conclusion is that concealment is complex, and actively engaged with throughout disordered eating recovery. This is an important extension of disordered eating recovery theory. Therefore, the significant role that concealment has for people seeking disordered eating recovery is evidence that concealment of disordered eating should be an integral element in the exploration disordered eating recovery.

Another important facet to consider when discussing the complexities of concealment within disordered eating recovery established throughout this research is the relationship it holds with social support. Both social support and the concealment of disordered eating from social groups appeared intrinsically linked in Study 1 as groups aware of the disordered eating and groups

uninvolved in disordered eating recovery were considered supportive. It could be argued that through the rationale behind the uninvolved group support (discussed in Chapter 4) there are different types of support being provided and this could account for some of the complexities discussed above regarding concealment of disordered eating. The evidence that an important relationship exists between social support and concealment is further supported through Study 2, as number of group identifications positively predicted social support when concealment was both low and high. This indicates that not only is there an important relationship between social support and concealment of disordered eating, but that both social support and concealment are more complex than is currently thought for those in disordered eating recovery. It also highlights that concealment and support are crucial components within the disordered eating recovery process.

There is no previous exploration into the relationship between social support and concealment for people seeking disordered eating recovery. As such, it is posited that low concealment facilitates the positive relationship between number of group identifications and social support because the more open people can be the more support, they will have access to (Bowlby et al., 2015). However, it is also posited that high concealment also facilitates the same relationship as the concealment allows the person seeking recovery not to be negatively impacted through their disordered eating, thus not impacting their ties to their social identities. These claims cannot be verified through the quantitative data, however, they align with the qualitative conclusions that both concealment and disclosure of disordered eating is positively associated with social support. Therefore, these findings suggest that while social support is important for people seeking disordered eating recovery, concealment of disordered eating is an influencing factor in social support, and both should be considered when exploring the other in relation to disordered eating recovery.

Aside from having a positive relationship with concealment of disordered eating, social support itself was concluded to have an important role in the relationship between social groups and disordered eating recovery. Unlike concealment, social support has been regularly researched in relation to disordered eating recovery (Akey et al., 2013; Bardone-Cone et al., 2010; Rorty et al.,

1998; Wade et al., 2012). Overall, it is thought that being supported throughout disordered eating recovery is beneficial for recovery maintenance and progress (Lindstedt et al., 2018). Therefore, the current findings support these claims, as being effectively supported was a central element of disordered eating recovery within Study 1. In Study 2, number of group identifications was positively associated with more perceived social support, which was positively associated with SWL, and negatively associated with depression symptoms (Chapter 6). Study 2 included four groups (family, friends, a group used for support and disordered eating recovery) and as such these findings can only be extrapolated to these specific groups. However, these findings reinforce the idea that supportive social identities is an important part of mental health and well-being (Greenway et al., 2015; Wakefield et al., 2019). Also, these findings provide an additional perspective on the role of social support for people seeking disordered eating recovery. As social support is not only important for disordered eating recovery but also for mental health and well-being too. Therefore, this work also highlights the nuanced role of social support for those seeking disordered eating recovery, thus further extending current theoretical understanding of support within disordered eating recovery.

Taking all these key findings into consideration, not only does this work support previous conclusions that social recovery is an important component of disordered eating recovery (De Vos et al., 2017) but also furthers our understanding of the context and nuances associated with the social identity processes disordered eating recovery centres around. As there is lack of consensus regarding the definition of disordered eating recovery (Bardone-Cone et al., 2018; Wade & Lock, 2019), through the findings presented throughout this thesis, a better understanding of the social component of disordered eating recovery has been presented. This thesis has discussed the social context behind the disordered eating recovery process, which centres around a desire for 'normality' achieved in part through social identities. The interactions with social groups, the meanings attached to each social identity, the complexities associated with concealment of disordered eating, and social support from social groups emphasises that disordered eating recovery does not take place in isolation but within the wider social world. This therefore highlights

the elements of disordered eating recovery established within this work that speak to recovery maintenance.

Based on the work presented, it is suggested that social identities, concealment of disordered eating, and social support should be the core elements of the social recovery component of disordered eating recovery. As the research presented throughout this thesis shows that many Social Cure components are central to disordered eating recovery (i.e., social identification, social support, social identity networks, and social identity change), it is proposed that a Social Cure model of disordered eating recovery be developed and could be a useful theoretical foundation for the social recovery involved in disordered eating recovery. As such, the next section will focus on the theoretical contributions and implications of this thesis on Social Cure literature before presenting practical implications.

8.4.2. Social identity approach literature considerations

As highlighted throughout the section above, there is a considerable contribution from this thesis regarding to the theoretical understanding of the social recovery involved in disordered eating recovery. However, the findings not only develop the knowledge of social aspects of disordered eating recovery, but also the nature of social identities throughout disordered eating recovery. As such, this section will explore how the findings from this thesis not only support the core concepts of Social Cure, but also extend the understanding of social identities and disordered eating recovery. The final part of this section will also explore important considerations regarding what is lacking in the application of the SIA to disordered eating recovery.

The research exploring the relationship between social identities and disordered eating recovery is sparse but concludes that social identities could be beneficial for people seeking recovery (Hastings et al., 2016; Ison & Kent, 2010; McNamara & Parsons, 2016). This thesis supports the conclusions of previous research, as it is suggested that a social identity related process is central to disordered eating recovery. However, the current research goes beyond supporting these claims as

the researcher has established not only that a wide variety of social identities are important for disordered eating recovery, but a process occurs similar to that proposed by Social Cure models (e.g., SIMOR; Best, Beckwith et al., 2016). Therefore, this section will focus on the social identity related processes which, through this thesis are suggested to intertwine with disordered eating recovery and the potential components which could be integrated into a model addressing these processes.

A central element of Social Cure is that social identity changes are experienced by those going through a significant life change, which informed the development of the theoretical models discussed throughout Chapter 2 (SIMC; Iyer et al., 2009, SIMOR; Best, Beckwith et al., 2016). As changes in social identities throughout disordered eating recovery were found in current research, there is support for this Social Cure element. However, Social Cure researchers claim it is more than the change in social groups that can impact mental health and well-being, it is the gaining and maintenance of social groups (Miller et al., 2017; Sani et al., 2015). In line with previous Social Cure research (Haslam et al., 2008; Sani et al., 2015; Miller et al., 2017), the researcher found increases in number of group identifications for people seeking disordered eating recovery was not only positive for disordered eating symptoms but also mental health and well-being. SIMOR creators acknowledge the need for change social identity networks to become recovery-orientated rather than illness orientated. However, the importance and beneficial effects of increased number of group identifications on mental health and well-being are not addressed. It could be argued that the theoretical model of SIMOR does not yet address the nuances (e.g., the positivity of the group membership, the contact with the group and the role of the uninvolved group) presented throughout this work, of each group within a social identity network that needs to change alongside disordered eating recovery. Therefore, this current body of work not only supports the core component of SIMOR that social identities change for people seeking recovery but extends the applicability of this model from addiction recovery to disordered eating recovery.

Additionally, in line with SIMOR, this thesis found the social identity changes that occurred throughout disordered eating recovery centred around the person seeking recovery's desires for

'normality' and a social identity related process was presented (see Figure 5.1). It would be remiss to ignore the presence of the Social Curse within this research. More specifically, the stigmatisation/discrimination of an ingroup member who were perceived to have deviated from group norms with their disordered eating (Kellezi & Reicher, 2012; Wakefield et al., 2019). To address this, people seeking disordered eating recovery distanced themselves from social groups they perceived as negative for recovery. Again, supporting the Social Cure researchers' conclusions that the social groups a person seeking recovery belongs to need to become recovery orientated. However, current findings extend this understanding, as groups did not need to be involved or aware of disordered eating recovery efforts but must align with the 'normality' sought for recovery. Study 1 conclusions that social identity networks had grown, becoming increasingly positive throughout the recovery process, this is the first work that shows social identity changes are experienced by people seeking disordered eating recovery follow the basic components of SIMIC and SIMOR. The social identity related processes established throughout this thesis continue to follow the key concepts of Social Cure and that turning this process into a Social Cure model, the nature of the changes in disordered eating recovery are crucial to consider (e.g., maintenance of groups that may be incompatible with other groups and recovery).

Throughout Social Cure research, social support is considered one of the key sources of social groups is support which is an important protective factor for mental health and well-being (Haslam et al., 2005). As discussed in the previous section, social support was a central component of disordered eating recovery. However, throughout this thesis it appeared social support was more complex than simply aligning with groups that are supportive of disordered eating recovery (Duncan et al., 2015; Eikey & Booth, 2017). The current findings show indirect support (i.e., provided by groups not aware of the disordered eating) and direct support (i.e., provided by groups involved with disordered eating recovery) are equally important for people seeking disordered eating recovery. This is the first body of work that has established groups do not need to be supportive of recovery, but supportive of the person more generally to be beneficial for disordered eating recovery. Therefore, the conclusion that social support (both direct and indirect) from social

identities for disordered eating recovery is important supports the Social Cure conclusions that social support is beneficial for well-being (Haslam et al., 2015) and recovery (Dingle, Cruwys, & Frings, 2015). Social support is not directly considered a component of SIMOR: within SIMOR social identities of people seeking recovery must align with recovery and that these recovery-orientated groups are important for recovery transition and maintenance (Best, Beckwith et al., 2016).

One of the key novel findings from this thesis is the complex role of concealment and how this intersects with social support to have an importance place within disordered eating recovery. The researcher concluded that concealment in addition to social support is important for disordered eating recovery. Within Social Cure literature, long-term concealment of a stigmatised identity (e.g., disordered eating) was associated with negative mental health outcomes (Newheiser & Barreto, 2014). This feeling of continuing to suffer negatively due to the stigma from their former disordered eating in their recovery was discussed in Study 1, the results of which highlighted that concealment of a former stigmatised identity (e.g., an ED diagnosis) was important for recovery. Again, this was dependent on the group that the disordered eating was being concealed from. A group perceived to judge the person recovering negatively is more likely not to be told about the disordered eating to prevent any negative outcomes (e.g., discrimination). Researchers suggest that through concealment of stigmatised identity there will be reduced access to support (Quinn & Earnshaw, 2011). This thesis shows this is not the case for people seeking disordered eating recovery as having groups that did not know about the disordered eating were also classified as supportive. This complex relationship is absent from SIMOR, through these findings it is suggested that for SIMOR to be applicable to disordered eating recovery in addition to including a more in-depth representation of support, concealment should also be incorporated to effectively address social identity processes in disordered eating recovery.

Despite the acknowledgement that concealable stigmatised identities exist, there has been little to no research into the nature of disclosure/concealment within the recovery literature. There is little (if any) mention of disclosure or concealment in the literature around SIMOR. Researchers have explored the implications of concealing a stigmatised identity (Chaudoir & Fisher, 2010; Quinn

& Earnshaw, 2011; Quinn & Earnshaw, 2013; Molero et al., 2011). However, unlike other social identity relevant processes (i.e., identification, social support, and group compatibility) concealment and disclosure are missing from much of the SIAH and recovery work. The central role of concealment throughout this present work suggests that there should be more SIAH work exploring the roles played by concealment and disclosure in affecting the recovery process. As the research into the role of social identities and disordered eating recovery is in its infancy, acknowledging the importance of disclosure/concealment at this early point should lead to the inclusion of disclosure/concealment in future research. This is therefore another gap within the SIAH and recovery literature that this present research begins to address.

The current findings support another core SIMOR component that groups not associated with and/or supportive of the illness identity are positive for recovery. Within SIMOR these are classified as recovery-orientated groups, but the understanding of what these recovery-orientated groups are is vague although much work exploring SIMOR has utilised therapeutic communities and recovery peer groups (Beckwith et al., 2019; Best et al., 2014; Dingle et al., 2015; Dingle et al., 2019; Taylor, McNamara, & Frings, 2020). However, it is argued here that as the meaning and interaction with social identities are important in establishing the role of each social identity for disordered eating recovery, not all groups considered supportive are recovery-based. Therefore, recovery-orientated groups may not necessarily be the correct terminology or classification for these groups within disordered eating recovery. This current work provides a more in-depth understanding of the social support provided by the social groups of people seeking disordered eating recovery. Therefore, our understanding of disordered eating recovery is enhanced, as it is more than having supportive groups that are important for recovery it involves a variety of factors (e.g., the context behind the support, the group providing the support). Arguably, social identity networks of people seeking disordered eating recovery should be a collective of groups that support and/or enable the enactment of the 'normality' sought by the person recovering. Therefore, it is suggested that for SIMOR to be more applicable to disordered eating recovery, and not just addiction recovery, there

needs to be additional information regarding the social support groups within the social identity networks provide the person seeking recovery.

Recovery-orientated groups in their initial iteration in SIMOR may not be appropriate for the social groups that enable the achievement of recovery desires (i.e., 'normality') for people seeking disordered eating recovery. However, it is thought that identification with others in recovery is an important component of the recovery process (Best, Beckwith et al., 2016; Frings & Albery, 2017; Dingle et al., 2015; Mawson et al., 2015). The current work showed increased recovery identification was positively associated with mental health and well-being. Recovery identification unlike others discussed throughout this body of work (i.e., family, friends, and work colleagues) is not necessarily a physical manifestation of a group, within this thesis was conceptualised as an 'imagined community'. No research prior to this thesis has directly explored the role of identification with others in disordered eating recovery, mental health, and well-being. Within other areas of recovery (e.g., addiction), developing a recovery identity is a crucial aspect of recovery, and strengthening this identification further benefits recovery efforts (Dingle, Stark, Cruwys, & Best, 2015; Mawson et al., 2015). This understanding of recovery identity is vague and throughout Social Cure research is utilised in various iterations: others in recovery (Bathish et al., 2017; Beckwith et al., 2019; Dingle, Stark, et al., 2015; Dingle et al., 2019); therapeutic groups (Beckwith et al., 2019; Best et al., 2014; Dingle et al., 2019); online support groups (McNamara & Parsons, 2016). As the goal of disordered eating recovery was to achieve a sense of 'normality', in which person could engage with their social world without their former disordered eating symptoms disrupting this. Living in a world where there is less focus on their former disordered eating identity arguably follows the basic principles of SIMOR (Best, Beckwith et al., 2016), where people surround themselves with groups hat directly and indirectly support their recovery efforts. As such, it could be suggested that the core principles of SIMOR are playing out within this research, as increased recovery identification over time predicted better disordered eating symptoms. As with the recovery-orientated group suggested in SIMOR, the recovery identity is an identity construct requiring further exploration to determine whether the imagined community

identification with others in recovery is the same as identification with a physical group of peers in recovery.

The current findings support many of the core theoretical conceptions regarding Social Cure elements within disordered eating recovery (i.e., social identification, social support, social identity change). However, this thesis has developed initial understandings regarding the role of social identities, disordered eating recovery, mental health, and well-being. Through these initial findings, the foundations of a potential Social Cure model addressing disordered eating recovery have begun to be established. This thesis not only highlights the social identity processes involved with disordered eating recovery, but the meaning behind the social identities held throughout disordered eating recovery. Development of the meaning and context behind social groups as provided throughout this current work is essential to ascertain what the role of each social group is in relation to disordered eating recovery. A clear example as to why meaning and context is needed is that family was not always seen as a positive part of disordered eating recovery, as highlighted in Study 1a, but it is one of the most frequently utilised groups within ED treatment (Couturier, Kimber, Szatmari, 2013; Jewell, Blessitt, Stewert, Simic, & Eisler, 2016; Lock, 2015; Lock & Le Grange, 2019). Family-based therapies may be commonplace in ED treatment but is not always highly valued by the person seeking recovery (Bell, 2003). The reactions of social groups to disordered eating can impact the ties between the group and the person seeking disordered eating recovery, which could have positive or negative implications for recovery progress. Therefore, before social identities can be incorporated within disordered eating recovery efforts, each social identity held by people seeking disordered eating recovery should be comprehensively explored before allowing them to be a part of the recovery process.

Through this thesis the meaning and importance of each group within the social identity networks has been explored. A considerable body of Social Cure work exploring the core concepts (i.e., social identification: Sani et al., 2015a; Sani et al., 2015b; Wakefield et al., 2013; Wakefield et al., 2019, social support: Haslam et al., 2005; Haslam et al., 2012; Steffens et al., 2016, social identity changes: Beckwith et al., 2019; Dingle, Stark et al., 2015; Dingle et al., 2019) the meaning

and importance assigned to each group within a social identity network is underexplored within Social Cure. As highlighted throughout this thesis, not only are the core concepts of Social Cure important within disordered eating recovery, but the interaction of the person seeking disordered eating recovery with their social identity network is also important. To effectively explore the interaction between person and their social identity networks the meaning and importance assigned to each group is key. A core feature of the social identity networks explored within this thesis is that they are varied and unique for each person. However, the networks were overall more positive than negative. Therefore, this thesis has a considerable contribution to add not only in developing knowledge of Social Cure in disordered eating recovery but also in furthering the understanding of the nuances of the social processes associated with disordered eating recovery. It is argued that the importance of the meaning behind each group that was developed throughout this thesis provides an in-depth understanding of social identity processes for people seeking disordered eating recovery which is lacking in the social identity models discussed in Chapter 2 (SIMIC; Iyer et al., 2009 and SIMOR; Best, Beckwith et al., 2016). Previous Social Cure models effectively establish the social identity processes associated with a variety of transitions; but the models lack a depth of understanding relating to the nuances of each social group/group identification involved in these transitions which would increase the applicability of these models for disordered eating recovery. As such, it is argued that a Social Cure theoretical model specifically addressing disordered eating recovery needs to account for the meaning, nuances, and contexts associated with social identities.

It is important not only to acknowledge the positives of applying the SIA to disordered eating recovery but also any weaknesses to the approach. One such weakness regarding the SIAH could be the lack of exploration and inclusion of personal identity– the internalised sense of self (Turner, 1982). A core component of social identification is depersonalisation, where people go from seeing themselves as 'I' to "we" (see Section 2.2 for more detail). Within the SIAH, it has been suggested that personal identity is defined by the group memberships we hold (Haslam et al., 2018). It is thought that personal identity can be lost after experiencing a life transition and that through the

important resources (e.g., social support) provided by group memberships, personal identity can be reinstated (Postmes & Jetten, 2006). Arguably, SIA research has highlighted that social phenomena (e.g., prejudice) reflect social identities rather than personal identities (Turner et al., 1987). As such, the focus of the SIAH research is social identification (identification with social groups) rather than personal identification (people's view of their individuality). Thus, SIAH researchers suggest that the aspect of identity that we derive from our group memberships (rather than from our personalities) can have an impact on health and well-being (Haslam et al., 2018). While these social dimensions of health are undoubtedly important, SIAH researchers could thus be neglecting a key predictor of health/well-being by ignoring the role played by personal identity.

The lack of inclusion of personal identity throughout SIAH research could be a concern, especially when the SIAH is applied to disordered eating and disordered eating recovery. Throughout the development and maintenance of disordered eating, the disordered eating becomes part of the person, and is often central to how they see themselves (Abbate-Daga et al., 2013; Corning & Heibel, 2016; Espindola & Blay, 2009). ED literature shows that people wanting to recover from an ED have to disentangle their personal identity from the ED, which has become a core part of their identity (Corning & Heibel, 2016; Espindola & Blay, 2009). However, it could be argued that as most of the research into disordered eating recovery is explored from a personal perspective, there is a greater need to understand the role of social identities in order to develop a more comprehensive understanding of disordered eating recovery. The research presented in this thesis shows SIAH (both Social Cure and Social Curse) processes are a valid and important element of disordered eating recovery. As such, it can be argued that although personal identity is not at the forefront of SIAH work, it is still acknowledged, as the social identities someone holds are what defines their sense of individuality (Haslam et al., 2018).

8.5. Practical implications

As discussed throughout the previous section, using the Social Cure to explore social identities throughout disordered recovery provides the necessary social context behind disordered eating recovery. These initial developments into the social identity processes intertwined with disordered eating recovery, show that social identities have a central role to play, something not yet acknowledged in the treatment of disordered eating. Social recovery has been argued to have a key role in disordered eating recovery, but it has not yet received the recognition within treatment environments (Patel et al., 2016). As such, it is thought these findings provide the rationale for the inclusion of social identity-based processes within the treatment of disordered eating. Therefore, following on from the conclusions above, this section will address the real-world application of the findings presented throughout this thesis. Specifically, (1) social identity-related recovery goals; (2) oSIM as a disordered eating treatment tool; and (3) utilising all supportive social groups within disordered eating treatment.

It is important to note that this thesis is developing and providing initial understandings about the role of social identities in disordered eating recovery and the social identity processes that underlie recovery. As this section centres around potential SIA interventions for disordered eating recovery, it is essential to highlight where this current research fits within the Medical Research Council's (MRC) framework for the development and evaluation of complex interventions (Skivington et al., 2021). The MRC framework has 5 main phases: "develop the intervention"; "identify the intervention"; "feasibility"; "implementation"; and "evaluation", and 6 core elements: "consider context"; "develop, refine and (re)test programme theory"; "engage stakeholders"; "identify key uncertainties"; "refine the intervention"; and "economic considerations" (Skivington et al., 2021). In accordance with the MRC's framework, this thesis is centred within the "develop the intervention" phase of complex intervention research, as it focuses on both the identification of the problem and understanding the theory around this problem. In terms of core elements, this thesis is centred within the "consider context" element as it is essentially a consideration of the context within which a SIA-based intervention could be appropriate.

This thesis is focused on providing an understanding of the 'problems' around disordered eating recovery and the lack of understanding regarding how it can be promoted and maintained. Another core focus of this current research is the recognition of social identity variables that could be important components of future interventions. However, the researcher wants to note that due to the exploratory nature of this work, the recommendations and implications are suggestions based on the thesis findings. The thesis' core findings (e.g., the complex nature of concealment, the importance of the 'uninvolved social group', and how social groups are an important part of the recovery process, etc.) need to be investigated further. As per the MRC framework there is a considerable number of elements of intervention development and implementation that this thesis cannot attend to, but through the findings reported in this thesis the process of developing and identifying a SIA intervention for disordered eating has begun.

8.5.1. Social identity-related recovery goals

As highlighted throughout this chapter so far, there is clear evidence from this body of work, that social groups have a central role throughout disordered eating recovery. Current findings support claims that people with disordered eating are thought to be socially withdrawn at the height of their disordered eating struggles (Griffiths et al., 2018; Pettersen et al., 2016; Robinson et al., 2013; Striegel-Moore et al., 2003) and that re-integration with the social world is an important part of recovery (Malson et al., 2011). As such, it is suggested that disordered eating recovery should incorporate social identity network goals in addition to incorporating social recovery, and more specifically social identities, in the definition and understanding of disordered eating recovery (as stated in Section 8.4.1). As such, it is suggested that to target social recovery, social identity networks should be a key focus throughout treatment for disordered eating, with the aim of addressing the social identity processes highlighted throughout this research. Initial recommendations from the work within this thesis would be the utilisation of social identity networks to encourage the maintenance of important groups throughout this transition, as groups that were maintained were important resources of support throughout recovery efforts within Study 1.

Additionally, 'uninvolved' groups, that aligned with allowing the person recovering to achieve the 'normality' they sought, but were not necessarily involved in the recovery efforts, were an important resource. As such, it is suggested that treatment for disordered eating should aim to aid the development of new social groups that align with the desires the person seeking recovery has for their recovery (i.e., a hobby). Allowing people seeking recovery to integrate with social groups that have no knowledge of their disordered eating may aid their recovery as they can develop a sense of self not associated with the disordered eating. Developing an identity which is associated with the new phase of one's life is thought to be a beneficial resource in coping with a life change, such as disordered eating (Iyer et al., 2009).

As participants in Study 1 indicated that withdrawing from groups perceived to be unsupportive for their recovery/well-being was part of their recovery process, it is suggested that treatment could focus on these groups. More specifically, as Study 1 participants stated that these unsupportive groups did not understand, potentially including these groups with the aim of improving understanding of disordered eating and ties with the person recovering could be beneficial. Also, aiming to develop new social groups to provide an additional resource for recovery could protect against any negatives experienced with unsupportive groups as indicated within Study 1. Participants with unsupportive groups also had other groups that were supportive or positive that aided their recovery. It can be argued from current findings that maintaining supportive groups and developing new groups, especially increasing the number of group identifications could be beneficial for both recovery and mental health/well-being. Ultimately, the findings from this thesis show that social groups have an important role to play in predicting the progress of disordered eating recovery through the well-known social identity processes. To effectively adds the social identity processes highlighted here it is suggested that oSIM (Bentley et al., 2019; Cruwys et al., 2016) would be an appropriate tool in therapeutic contexts.

8.5.2. oSIM as a disordered eating treatment tool

As discussed in Chapter 4, oSIM was effective in quantitatively exploring the nature of social groups of those in disordered eating recovery. Study 1 was conducted in 2017/2018 and since then oSIM has been altered and further developed, gaining interest amongst the Social Cure researchers (Bentley et al., 2019; Beckwith et al., 2019) suggesting that oSIM is a useful tool in the exploration of social identity networks throughout recovery. The research using oSIM has only employed it as a quantitative tool (Beckwith et al., 2019; Bentley et al., 2019; Cruwys et al., 2016). However, as highlighted through Study 1, using oSIM qualitatively as an interview aid provided necessary context and meaning behind social groups. Therefore, it is suggested that implementation within a treatment setting would be appropriate to both gain the quantitative information to monitor any changes to the social groups over the course of recovery efforts and the qualitative information surrounding those social groups would provide the necessary context behind those social groups to enable the assessment of the roles each group have for recovery progress.

As oSIM was deemed useful in the understanding of social groups by participants in disordered eating recovery (Chapter 4), it can be suggested that the positive attributes of oSIM (i.e., clearly showing the positive elements of social groups) could be a beneficial for disordered eating recovery treatment by providing clear information about social groups. However, it needs to be acknowledged that the sample within Study 1 were in disordered eating recovery and discussed how at earlier stages of their disordered eating their social identity networks would have been smaller and less positive. Therefore, it could be expected that the social identity networks held by those battling with their disordered eating would be less positive than those presented in this work. As such, the positive attributes of social identity networks and the oSIM may not be the same for those not yet in disordered eating recovery, however, as becoming more socially connected is a central element of disordered eating recovery (Bohrer et al., 2020), it would be an appropriate tool to target this and clearly monitor the progress of social integration.

An important consideration when debating the use of oSIM within disordered eating treatment is how this would be implemented. As initially commented in Section 2.6, group

interventions could be relevant for disordered eating treatments. However, greater understanding of disordered eating recovery, the role of social identity, and the social processes involved in achieving and maintaining recovery is necessary before progressing with changes/additions to disordered eating interventions. As the current research is part of the initial explorations into the social identity approach to health and disordered eating recovery, these considerations and suggestions would need further exploration before any implementation or testing as intervention options occurred. However, it could be suggested that the current work is the beginning of this journey to discovering necessary underpinnings of potential group interventions for disordered eating.

An argument could be made for the future use of oSIM as a therapeutic tool, where the focus would be to encourage the expansion of social identity networks alongside recovery. This was recently suggested through an investigation into oSIM, however, utilisation of oSIM as an intervention in its own right is in its infancy (Bentley et al., 2019). Bentley and colleagues (2019) claimed that oSIM is more interesting than traditional measures, but they did not find that oSIM made participants more aware of their groups. However, this current research did, suggesting that oSIM has more to offer participants than being more interesting, it could benefit their awareness of their social identity networks.

Research into interventions targeting social identities within the disordered eating context is sparse. Social identity researchers have concluded that interventions utilising group activities are effective in promoting social identification (Cruwys et al., 2014). pSIM has been utilised as a component of the *Groups 4 Health* (G4H) program, which aims to increase social identities for attendees (Haslam et al., 2016a). G4H utilises pSIM to highlight the benefits of social groups, identifying and strengthening current group-based resources ultimately to promote long-term maintenance of social group memberships (Haslam et al., 2016a). Therefore, through the conclusions of this study, it can be argued that future research into disordered eating and social identities could utilise oSIM longitudinally to effectively explore social identity changes as these recovery transitions are experienced. This avenue of research is supported by previous studies that

have successfully explored social identity changes through a life transition using SIM via a longitudinal design (addiction recovery: Haslam et al., 2016b; social isolation: Cruwys et al., 2016). Therefore, longitudinal research exploring social identity changes throughout EDs could benefit from utilising oSIM.

Another consideration to be made regarding the use of oSIM within treatment environments is the nature of the delivery. G4H (Haslam et al., 2016a) is implemented within a group setting so that identification to that group acts not only as an additional group for the social identity networks, but also the identification with this G4H group can be examined at the same time (Haslam et al., 2016a). Group-based therapies are often used throughout disordered eating treatments (e.g., compassion focused: Kelly, Wisniewski, Martin-Wagar, & Hoffman, 2017, cognitive behavioural therapy: Chen et al., 2002; Fernández-Aranda et al., 2009; Wade, Byrne, & Allen, 2016, online groups: Gollings & Paxton, 2006; Heinicke, Paxton, McLean, & Wertheim, 2007) and therefore provide a solid rationale for running oSIM within a group setting. However, as oSIM was completed in a one-on-one environment within this thesis, no conclusions regarding the utility of oSIM in a group environment can be made.

As oSIM appeared to work effectively in the one-to-one setting, utilising oSIM in a treatment environment could also be done between a treatment facilitator and the person seeking disordered eating recovery. As the oSIM provides detailed step-by-step instructions for the person devising their oSIM, it could be argued that the facilitator would need to be there to assist the creation of the oSIM, gain the contextual information around each group and provide any reassurance. The few requirements for the facilitator would be that they would need to ensure they understand why they are implementing oSIM to ensure they ask the appropriate questions to gain the necessary context without providing unhelpful feedback (e.g., a small or highly incompatible oSIM should be focused on in terms of developing it to become bigger and not focusing on the incompatibilities of the oSIM). It would also be important that a facilitator knows how oSIM works, to aid the creation, answer technical questions, and ensure the oSIM is completed correctly. Also, as the aim is to utilise oSIM as a tool to encourage and monitor the social identity changes that occur throughout

disordered eating recovery, it would be essential that the oSIM facilitator is someone who plans to be around for the duration of the person's treatment. This would help to foster good therapeutic relationships and provide consistency on the contextual information being gathered and developed over the process of treatment.

Due to the infancy of the research into SIA and disordered eating recovery, the researcher is unable to make any claims regarding whether the SIA should underpin a disordered eating intervention, or whether it would be best placed in combination with existing treatments. However, an argument could be made for either option. As discussed in Section 3.4.2 and throughout Chapter 4, G4H and elements of G4H (i.e., pSIM/oSIM) have been utilised to explore the SIA in a wide variety of mental health areas and populations (addiction recovery: Beckwith et al., 2019; depression: Cruwys et al., 2021; Cruwys et al., 2021; loneliness and social anxiety: Haslam et al., 2019; retirees: Bentley et al., 2019; social isolation: Cruwys et al., 2016). A common theme across this growing body of work is that utilising social identity processes (e.g., strengthening current social identities; maintaining existing social identities; and establishing new social groups) in a group setting is beneficial for different areas of mental health (Beckwith et al., 2019; Cruwys et al., 2021; Cruwys et al., 2021; Haslam et al., 2016; Haslam et al., 2019). Another commonality across the G4H literature is that delivering G4H in a group setting allows for the people attending to form a new identification which grows their social identity networks and thus further enhances their mental health and well-being (Cruwys et al., 2016; Haslam et al., 2016). This wealth of G4H and SIM research suggests that they function as useful SIA interventions, supporting the idea that a SIA intervention utilising SIM could be beneficial for disordered eating recovery, as suggested by the current findings.

Researchers recently explored the efficacy of G4H compared to Cognitive Behavioural Therapy (CBT) in reducing loneliness and depression (Cruwys et al., 2021). It was concluded that G4H and CBT were similar in reducing depression symptoms, but G4H was slightly better for loneliness (Cruwys et al., 2021). Further to this, the lasting impact of the G4H intervention was greater than that experienced by the CBT group, even after the COVID-19 lockdown (Cruwys et al., 2021). This

suggests that G4H can indeed be a useful stand-alone intervention and has results comparable with traditional treatment methods. This provides further support for the use of a SIA intervention rather than as an addition to existing treatment options. This finding is especially important due to the use of CBT as a treatment option for EDs. CBT is reportedly an effective treatment for EDs, especially BN and Binge-eating disorder (Linardon et al., 2017; Turner, Marshall, Wood, Stopa, & Waller, 2016; Murphy, Straebler, Cooper, & Fairburn, 2010). The success of CBT led to the development of CBT-E (Enhanced Cognitive Behavioural Therapy) which is an intervention designed specifically to address all EDs (Fairburn, 2008). The CBT-E has continued to be explored as a treatment for the majority of EDs (Dahlenburg, Gleaves & Hutchinson, 2019; Fairburn et al., 2009; Fairburn et al., 2015; Groff, 2015; McDonald, MacFarlane. Trottier, Mahan & Olmsted, 2021). Conclusions from explorations of CBT-E are that it is an effective treatment method across EDs for both older adolescents and adults (Atwood & Friedman, 2019; Linardon et al., 2017).

Researchers have suggested that CBT-E functions as an effective intervention to address ED pathology in a group setting (Wade, Byrne & Allen, 2017). Group treatments are thought to be beneficial for those with an ED, as the group environment can reduce feelings of shame and their thoughts/feelings are normalised (Starkham, 2016). Additionally, people engaging in group CBT-E can feel more socially connected because of the group (Hambleton, Hanstock, Simeone, & Sperling, 2020). Reducing loneliness and increasing social connectedness through the maintenance and development of social groups and through experiencing identification with these groups is a central aim of G4H and SIA more generally (Cruwys et al., 2021; Cruwys et al., 2021; Haslam et al., 2016; Haslam et al., 2019). As groups are being acknowledged as an effective way to deliver ED interventions, it could be suggested that actively attending to the group processes (e.g., by using G4H) could further strengthen the benefits of these group interventions. As such, it could be argued that the success of CBT-E in addressing ED pathology, in combination with the SIA benefits associated with group interventions, could provide the necessary framework for the combination of CBT-E and G4H.

As discussed throughout this thesis, not only has oSIM/pSIM been utilised as a core part of the G4H intervention, but it has also been used on its own to assess social identity and social identity networks for people seeking changes to their mental health/well-being (Bentley et al., 2019; Cruwys et al., 2016). Additionally there have been variations and modifications of SIM (i.e., Social Identity Mapping in Addiction Recovery, SIM-AR; Beckwith et al., 2019). SIM was designed with the view that it could be adapted based on the researcher's area of interest. Thus, seeing SIM being used in different mental health areas expands the relevance of SIM and its potential within disordered eating recovery. However, there is a need for the current findings to be further explored and then rigorous testing of the SIA in disordered eating recovery can take place, to in time inform disordered eating treatments/interventions.

Another significant implication from this thesis is that the findings not only support the use of oSIM with those in disordered eating recovery, but that they also highlight the relevance of SIA in disordered eating recovery. Ultimately, this body of G4H literature is continually being developed, so the array of different mental health and well-being areas where G4H and pSIM/oSIM are being utilised is growing. This shows that the core concepts of SIA work as a unifying framework to not only understand social identity/identity network changes (Beckwith et al., 2019), but also benefit mental health/well-being (Haslam et al., 2016). As such, it could be argued that as oSIM was effective in exploring the social groups of people in disordered eating recovery, there is the potential for G4H to be effective as an intervention for disordered eating recovery.

8.5.3. Utilising all supportive social groups within disordered eating treatment

In addition to using oSIM to explore, monitor, and aid development of social identity networks for people seeking disordered eating recovery another suggestion is the inclusion of important and supportive social groups with the treatment process. As it was highlighted that social groups held an important and central role within the recovery process, it could be useful to include these social groups in the treatment process. Establishing social groups that are positive, important, and

supportive of disordered eating recovery and utilising these groups as a resource for social support could aid the recovery efforts. The inclusion of important and/or supportive groups would not only be positive for the person seeking disordered eating recovery but also for the group. As discussed in Chapter 5, groups maintained throughout the process of recovery were deemed to have grown alongside the person recovering and this aided the journey to the 'normality' sought for recovery. Therefore, it is suggested that through the involvement of these positive and supportive groups the disordered eating recovery would benefit.

It is argued that the inclusion of social identity networks within treatment and recovery process, however, an important consideration to account for is the role the person seeking recovery wants that group to have in their recovery. As highlighted above, not all groups within social identity networks need to be aware and/or involved with the recovery progress to be positive and supportive (Chapter 5). Family is often considered an important part of the recovery process, but this is not true for all people with disordered eating, and it may not necessarily be the most viable group to include within recovery efforts. As such, effectively establishing the relationship the person seeking recovery has with each of their groups will allow the person to take more control over their recovery. Also the clinician will develop an incredibly in-depth understanding of this relationship, leading to informed decisions to who to and who not to include into the treatment process. This supports the claims for the utilisation of supportive social groups to benefit the recovery process and not necessarily those perceived as unsupportive. Therefore, establishing the contextual information behind each social group is as important as the inclusion of social identities into the recovery process. This highlights how the findings from this thesis can be useful for clinical environments for both people seeking disordered eating recovery, their social groups, and their clinical team.

Finally, another group that could be beneficial in the disordered eating recovery process is a disordered eating recovery group. More specifically, the development of this group with the aim to foster and increase the identification with this recovery group, as increased recovery identification was positively associated with better mental health and well-being for people seeking disordered

eating recovery. As both disordered eating recovery and improvements in general mental health and well-being are or have been recommended as key targets for disordered eating recovery (de Vos et al., 2017; de Vos, Radstaak, Bohlmeiger, & Westerhof, 2018; Linville et al., 2012; Romano & Ebener, 2019) the addition of a recovery identity could aid the development of better recovery outcomes. As previous research has suggested that the support and community formed within in-patient settings is central to recovery which can last after treatment has ceased (Eli, 2014). As such, it could be that the identification with this recovery-based group already exists for many seeking disordered eating recovery but has yet to be explicitly explored from a social identity perspective. The researcher has suggested that this group does not necessarily need to be a physical group, it could be an imagined community (Anderson, 2006), where people seeking disordered eating recovery identify with others who are also in disordered eating recovery without having a physical connection to this group. These are initial findings regarding recovery identification within disordered eating recovery and more work is needed to further unpack the significance of recovery identification for disordered eating before its endorsement within treatment settings.

There are many practical implications for the findings of this body of work, mostly centred around the inclusion of social identities within the recovery process and effectively utilising oSIM to encourage the social recovery necessary for disordered eating recovery. However, these findings are in their infancy within both the disordered eating literature and Social Cure literature and more work would be necessary before the implementation of the suggestions discussed within this section. As such, suggestions for the future work needed to enable the inclusion of social identity-based practices to be included in the treatment of disordered eating will be presented in Section 8.7.

8.6. Thesis strengths and limitations

This current section will look at the strengths and limitations of the thesis overall. There are two main areas discussed: the samples utilised throughout this thesis and the thesis methodology.

8.6.1. Thesis sample

Strengths

As discussed throughout this thesis, the approach to disordered eating was the spectrum definition that included people with and without ED diagnoses as previously used in disordered eating research (Wade et al., 2012) and Social Cure work (Cruwys et al., 2016). Research into disordered eating that focuses specifically on clinically diagnosed EDs is subsequently limited to those most extreme cases (Papathomas et al., 2018). Whereas the approach of researching the disordered eating spectrum means these findings can be applied to a wide variety of disordered eating (Wade et al., 2012). The samples within this thesis reflect this definition, as within both Study 1 and Study 2 samples were a mix of both those with and without formal diagnoses. By utilising the whole disordered eating spectrum, the findings have greater generalisability and highlight that social identity processes are experienced by people seeking recovery from both sub-clinical and clinical EDs. Although in Study 1 and Study 2b the distribution between sub-clinical and clinical EDs was skewed towards the clinical EDs there were no differences between sub-clinical EDs and clinical EDs within Study 2. As such, it can be argued that the findings still highlight that these findings are important for people at the extreme end of the disordered eating spectrum and people at the other end. Previous work exploring the Social Cure and disordered eating has focused on EDs (Ison & Kent; McNamara & Parsons, 2016), therefore these current findings widen the understanding of Social Cure across the disordered eating spectrum. As such, it could be argued that future work in this field should again utilise the spectrum of disordered eating.

Another important consideration of the samples is the age range utilised throughout this thesis. Overall, the age ranges across this thesis ranged from 18-62 years of age, which for disordered eating research is a vast age range. A considerable amount of research focuses on young people (Bacopoulou et al., 2018; Carrot et al., 2017; Couturier et al., 2013; Couturier & Lock, 2006; Croll et al., 2002; Eisenberg et al., 2014; Eisler et al., 2016; Fenning et al. ,2002; Ferreiro et al., 2011; Franko & Omori, 1999; Halvorsen et al., 2004; Heinicke et al., 2007; Herpertz-Dahlmann et al., 2001; Jenkins et al., 2014; Jewell et al., 2016; Lee et al., 2018; Lieberman et al., 2001; Paxton et al., 2006).

Research has explored disordered eating in older people, but this research is limited in comparison to young people (Lewis & Cachelin, 2001; Lewis-Smith, Diedrichs, Rumsey, & Harcourt, 2016; McLean, Paxton, & Wertheim, 2010; McLean, Paxton, & Wertheim, 2011; Patrick & Stahl, 2009; Samuels, Maine, & Tantillo, 2019; Slevec & Tiggermann, 2010). Due to the samples utilised within this thesis and claims that recovery is an ongoing process, where some believe they will never be fully recovered it could be argued that disordered eating recovery is encountered at any age. Age was controlled for within Study 2, despite controlling for age it could be argued that the age range across the two studies is a strength of this research as the findings can be applicable to the considerable age range rather than being limited to either young people or older people. Therefore, it is important to explore disordered eating recovery across a wide variety of age groups as was done throughout this thesis.

Limitations

Across the samples within this body of work, most participants identified their gender as female, Study 1a = 93.34%, Study 1b = 87.5%, Study 2a = 91.98%, Study 2b = 93.75%. As disordered eating is a concern for males and the awareness and rate of disordered eating being found in males is increasing (Robinson et al., 2013) a more even distribution of gender throughout the current samples would have made the findings more generalisable across the genders. However, this is an issue across the majority of work exploring disordered eating as samples are often skewed towards females (Striegel-Moore et al., 2009). Therefore, this is a limitation of the current work, however, the samples are representative of previous work and the presentation of disordered eating general population. It has been claimed that the recovery process for males is similar to that reported for females (Pettersen et al., 2016). The current findings are in line with previous literature, but future work should address this and explore these findings in males who identify as having disordered eating and are in/seeking recovery, with the aim of exploring Social Cure processes within males

and where there are similarities across gender in terms of social identities and disordered eating recovery.

One direction future work could go is to explore the intricacies of disclosure/concealment of disordered eating in males and females. There could be different factors to explore regarding the relationship between concealment/disclosure and recovery as being male specifically makes it difficult to disclose an ED (Robinson et al., 2013). Shame (a major factor in disclosure) regarding disordered eating can be different between males and females (Jambekar, Masheb, & Grilo, 2003). It is thought that as EDs are typically seen as female disorders and men must cross this additional stigma and the issue of masculinity when disclosing, seeking treatment, and recovering (Bardone-Cone et al., 2019; Griffiths et al., 2015; Robinson et al., 2013). So, although both males and females have concerns about disclosing about disordered eating because of others reaction, it is greater in males because of gender roles (Greenberg & Schoen, 2008). Thus, it is important to explore the factors influencing disclosure in both males and female to comprehensively understand the relationship between disclosure/concealment and disordered eating recovery.

It is also important to note that Study 2b (Chapter 7) was affected by sample attrition (38.13% attrition rate) between T1 and T2. Attrition was expected, as it is a common within longitudinal research (Iyer et al., 2009; Wakefield, Bowe, Kellezi, Butcher, & Groeger, 2019; Neumark-Sztainer, Wall, Larson, Eisenberg, & Loth, 2011). Sample attrition is also common throughout disordered eating research (Neeren et al., 2010). Attrition experienced within Study 2 is comparable with other attrition rates reported in longitudinal studies with a six-month gap (20%; Troop et al., 2014 and 36.7%; Sala & Levinson, 2016). The small sample size achieved for the longitudinal analysis did not restrict the analysis that could be conducted on the resulting data, as the sample had appropriate power for the analyses chosen (see Section 6.4.1). People with disordered eating are considered a hard-to-reach population; as such, a small sample size is to be expected. A small sample size can lead to generalisation problems, the findings do provide an initial understanding of social identity change within disordered eating recovery, on which future research can be built.

8.6.2. Thesis methodology

Mixed method approach

The approach to this thesis was mixed methods, the utilisation of both qualitative and quantitative methods was a major strength of this body of work as each method provides a different perspective on social identities and disordered eating recovery (Creswell & Clark, 2017). One of the benefits of establishing a mixed methods design to the thesis as a whole is that the integration of these findings clearly highlights how the positives of quantitative research evolved the qualitative research findings and how the qualitative findings advance the quantitative findings over the course of the thesis. Mixed methods research provides insights that go beyond both the quantitative and qualitative findings individually, as the integration of both these findings provides an elevated understanding of social identities and disordered eating recovery (Fetters & Freshwater, 2015). Through the combination of both methods, it can be argued that the findings are more robust as many of the qualitative findings were confirmed through the testable quantitative findings and the quantitative findings were enhanced through the qualitative contextual understandings established (Creswell & Clarke, 2017). As the Social Cure within disordered eating recovery is in its infancy, employing a variety of methods allowed for a wide variety of findings providing the foundation for future work across a broad range of topics within the Social Cure to disordered eating recovery.

The type and number of social groups used in Study 2

A wide variety of groups were found to make up the social identity networks held by those in disordered eating recovery (Chapter 4). Within Study 2, only four groups were utilised: family, friends, a group used for support and others in recovery. These groups were chosen due to their prominence throughout Study 1. As such, Study 2 findings regarding the social identities and mental health/well-being of people seeking disordered eating recovery can only be applied to those four

groups, which may only be a snapshot of social identities held and not representative of social identity networks. It could also be argued that the groups utilised in Study 2 were also often involved in the recovery efforts detailed in Study 1, and as such, it could make sense that being open was associated with better mental health and well-being, as these groups are more commonly aware of the disordered eating recovery as highlighted in Study 1. Therefore, it could be argued that utilising more social identities would have been representative of social identity networks and could have addressed the complex nature of concealment and support found in Study 1. However, Social Cure researchers have claimed that there could be a ceiling effect when exploring social groups which is reached around 3 or 4 groups (Wakefield et al., 2017). As such, it could be claimed that Study 2 included a range of important social groups and the number is in line with research within the Social Cure (Sani et al., 2015a, Sani et al., 2015b). Future research should be conducted to address the limitations discussed.

8.7. Future research recommendations

Future research ideas have been discussed within the empirical studies, but additional research suggestions will be presented here based on the integration of the findings and limitations highlighted above. The future research ideas are centred around three main topics: (1) Social Cure within disordered eating recovery; (2) social identity networks in disordered eating recovery, and (3) the complex relationship between concealment of disordered eating and social support.

8.7.1. Continued exploration of the Social Cure within disordered eating recovery.

This thesis provided further support for the core principles of the Social Cure in that increased number of social group memberships had beneficial mental health and well-being outcomes (Haslam et al., 2008; Miller et al., 2017; Sani et al., 2015) for people seeking disordered eating recovery. There is extensive research on the relevance of the Social Cure within many areas of mental health and well-being (addiction: Beckwith et al., 2019; Best, Beckwith et al., 2016;

depression: Cruwys et al., 2014; Cruwys et al., 2016; schooling transitions: Iyer et al., 2009), but there is considerably less research regarding disordered eating (Cruwys et al., 2016; Ison & Kent, 2010) and even less surrounding disordered eating recovery (McNamara & Parsons, 2016). Therefore, the current findings expand our knowledge of the Social Cure within disordered eating recovery. However, this research is in its infancy and although it appears that many SIMOR processes are played out within disordered eating recovery. However, a Social Cure model specifically targeting disordered eating, acknowledging the complexities of concealment, social support, recovery identification, mental health, and well-being on the relationship between social identities and disordered eating recovery should be devised.

8.7.2. Investigation of social identity network changes throughout disordered eating recovery

As highlighted in Section 8.4, future work should aim to use oSIM in the exploration of social identity networks over the course of disordered eating recovery with the view of implementing oSIM as a tool within treatment for disordered eating. It is suggested that future research should continue to explore social identity changes throughout disordered eating recovery using oSIM. The utilisation of oSIM as a mixed methods tool, as implemented in Study 1a, could develop a comprehensive understanding of social identity networks, any changes throughout disordered eating recovery and the context underpinning their social identity networks. pSIM and oSIM have been utilised within a variety of settings since its creation (addiction recovery: Bentley et al., 2019; Beckwith et al., 2019; social isolation: Haslam, Cruwys, Haslam, Dingle, & Chang, 2016; students: Cruwys et al., 2016). However, prior to this current research SIM had yet to be utilised within disordered eating recovery. As this thesis was the first to utilise oSIM to gather both qualitative and quantitative data, future research utilising this tool should continue to use it in this manner to comprehensively investigate the social identity networks of people seeking disordered eating recovery. Additionally, Study 1 relied on participant's retrospective reporting on how their oSIMs would have looked throughout their disordered eating struggles. Future research into disordered

eating recovery and social identities could utilise oSIM longitudinally to effectively explore social identity changes as recovery transitions are experienced. This future research direction is supported by studies that successfully explored social identity changes longitudinally through oSIM (addiction recovery: Haslam et al., 2016; social isolation: Cruwys et al., 2016). Therefore, future work utilising oSIM in disordered eating recovery should explore its utility throughout all the phases of disordered eating recovery (e.g., while people are undergoing treatment) to expand on the current findings. This future work would help to establish a rationale for the use of oSIM within a treatment environment.

8.7.3. Investigation of concealment of disordered eating and social support throughout disordered eating recovery

Throughout this thesis, concealment was shown to have a complex relationship with social identities, disordered eating recovery, mental health, and well-being. To date, research on concealment and disordered eating is sparse (Williams et al., 2018). Both concealment and disclosure were highlighted as positive for recovery, mental health, and well-being throughout this body of work. Future work is needed to confirm conclusions from this work that concealment is a complex process that people in disordered eating actively engage in. However, when exploring concealment and social support should also be included in the investigation as it appears that concealment and social support are intertwined in their roles in disordered eating recovery. Further work to unpack why concealment and social support are interlinked, as found in this research, is needed to not only confirm the current conclusions, but also clarify why and how these two important elements of social groups are intertwined.

8.8. Concluding remarks

This thesis has followed a mixed-method approach providing the first in-depth investigation of the relationship between social identities and mental health/well-being for people seeking

disordered eating recovery. While there is a lack of consensus regarding the definition of disordered eating recovery (Bardone-Cone, Hunt, & Watson, 2018; Wade & Lock, 2019), this body of work not only supports the inclusion of social recovery as an important component of disordered eating recovery, but that disordered eating recovery is an inherently social process. The main findings regarding the understanding of disordered eating recovery are that recovery is more than an absence of disordered eating symptoms or being 100% recovered, it is considered an on-going process that may have no end point. Desires for disordered eating recovery revolved around a 'normality' by which the person in recovery was able to function 'normally' without their disordered eating behaviours and/or thoughts hindering their ability to interact with their social world. As such, it is argued that social recovery is a central factor of disordered eating recovery and should be acknowledged in both research and clinical environments.

Further to the important and central role of social recovery within disordered eating recovery, this body of work shows social identities have a key role throughout disordered eating recovery. Previous research had suggested that social identities would have a positive role for disordered eating recovery (Ison & Kent, 2010; McNamara & Parsons, 2016) but they did not directly examine this relationship. Throughout this thesis a social identity process, similar to that represented by SIMOR (Best, Beckwith et al., 2016) was established: groups deemed negative for recovery became less important, supportive, and important groups were maintained throughout recovery efforts and new groups were formed when in recovery, all leading to social identity networks that aligned with recovery. However, this thesis highlighted that this social identity process is more complex and the underlying context and meaning behind these changes to social groups was established. This is important as understanding why and how social identity change occurs within disordered eating recovery provides the necessary rationale for incorporating this process into disordered eating recovery goals.

One of the novel findings from this body of work was the important role of concealment of disordered eating. It appears that both concealment and disclosure of disordered eating can have positive implications for social group ties, recovery, mental health, and well-being. Current

understandings of disclosure and concealment are limited (Bowlby et al., 2015; Williams et al., 2018). As such, these findings not only show that concealment of disordered eating is an important and active consideration of those in disordered eating recovery, but also highlight that further work is needed to unpack the complex relationship found. In addition to finding that concealment of disordered eating was important for people in disordered eating recovery, this work shows that social support was intertwined with concealment. Even when a group had no knowledge of the disordered eating they could still be classed as supportive as they enabled the person seeking disordered eating recovery to achieve their desired 'normality' due to not being associated with the stigmatised disordered eating identity. However, as this is the first study to find this complex relationship between concealment and social support from a Social Cure perspective for people seeking disordered eating recovery these conclusions are in their infancy and further investigation into this relationship is needed.

To conclude, each social group within a social identity network has complexities and nuances and these all influence the role that every group has within the disordered eating recovery process. Social identity networks change throughout the course of disordered eating recovery, becoming more positive and in line with what the person recovering wishes for their recovery: 'normality'. The Social Cure to disordered eating as established throughout this study has the foundations for future work to build on and develop so the understanding of the Social Cure in disordered eating recovery matches that of other areas of mental health recovery.

9. References

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Appendices

NOTTINGHAM TRENT UNIVERSITY

What Does Recovery Mean to Those Recovering from An Eating Disorder?

Are you in recovery from an eating disorder?

Are you aged 18 or above?

Would you like to take part in research?

If the answer to these questions is yes, then please take the time to read this information about a study that you may be interested in.

My name is Jade Streete, I am a PhD student studying at Nottingham Trent University and I am looking for participants who are in recovery from an eating disorder. This is an interview study will involve a casual interview about your life with an eating disorder and your recovery. It will also have another task about mapping your social groups (more information will be provided by contacting me via the email address below). I am interested in every aspect of your journey, but my focus is on the social relationships throughout your journey, you would be encouraged to share as much as you feel comfortable talking about.

I am passionate about understanding eating disorders and people's experience of recovering from one. I am hoping that through this study I can develop a better knowledge of the journey you go through with a focus on the social side of your experience.

Please if you are interested in finding out more about the study and taking part please do get in touch with either myself or my director of studies so that I can send you more detailed information.

Contact information:

PhD Researcher Details:

Jade Streete

Email: jade.streete2016@my.ntu.ac.uk

My Director of Studies Details:

Dr Niamh McNamara

Email:

Telephone:

Participant Information Sheet.

What does recovery mean to those recovering from an Eating Disorder?

Participant Information Sheet

My name is Jade Streete and I am exploring eating disorder recovery for my PhD research.

What is this research about?

This study is going to explore what eating disorder recovery means to those people going through it. I will ask a series of questions about your life with your eating disorder and your life since you started your recovery. I am also interested in looking at the social groups you belonged to throughout this journey. Questions will also be around whether the groups have changed and in what way.

Why is the research being done?

This is necessary just so that the I can understand the social world of an individual in recovery from an eating disorder. Hopefully through learning about the changes to social life throughout living with an eating disorder it can lead to better help regarding these changes to be provided to those in need of it.

What will happen if you decide to participate?

If you take part in this study there will be an interview that will last for approximately 30/40 minutes. This can be either face-to-face or via skype. You can share anything that has been important to you, throughout this journey that you feel could be important to this study.

There will also be a short task (around 15/20 minutes) which will involve the creation of a social identity map, which I will explain and help you to create. This will simply detail the social groups (e.g., family, squash club and a recovery support group) that you may be a member of. With a variety of information noted about each (e.g., how many days a month, on average, that you spend doing activities related to the group).
Both, the interview and the mapping task will be audio recorded with your permission and then transcribed.

How will my privacy be protected?

Due to the nature of this kind of research, extracts from the interview will be used in the final thesis and other potential publications. To protect your anonymity your name will be changed to a fake one that only you and myself will know relates to you. The interview and the transcription and any write up involving your interview will be stored under this fake name which will be kept separate from your consent sheet. Only myself and three supervisors will have access to this pseudonymised data. The recordings will be destroyed after the transcription and analysis is complete.

However, if you take part in this study and disclose any information that suggests you are at immediate risk from harmful behaviours, confidentiality will have to be broken and these will be reported to my director of studies.

What are the benefits/risks of taking part in this study?

There are no direct benefits for you taking part in this research. Although the findings will develop a better understanding of eating disorder recovery and finding another technique to help understand the changes to social life that occur throughout life with an eating disorder. There are no risks known regarding participation.

Can I change my mind and withdraw from the study?

Yes, if you agree to take part in this study it is completely voluntary. You are completely within your rights to not answer any questions throughout the interview and the mapping task and to ask for the recording to be stopped. No-one other than yourself and I will know if you choose to withdraw at any point. If you do agree to take part but after the completion of the interview you do decide you no longer want to take part, simply email me at and supply me the fake name given to you at the interview. No explanation would be required, withdrawing is completely within your rights. However, there will be a cut off period in which your data will have already been used and analysed (which will be on you consent and debrief sheet). If you wish to withdraw from the study after that date you must be aware that while your data will not be used for any publications it will still be used for the PhD thesis.

Can I find out the outcomes of this study?

Yes, if you wish to a summarised document can be provided to you through emailing myself

Please, if you have any queries or would like more specific information around this research, please feel free to contact me or my director of studies and we will be happy to answer any questions you may have.

Contact information:

PhD Researcher Details:
Jade Streete
Email: jade.streete2016@my.ntu.ac.uk

My Director of Studies Details:
Dr. Niamh McNamara
Email: niamh.mcnamara@ntu.ac.uk
Telephone: 0115 848 4346

Department of Psychology
Nottingham Trent University
50 Shakespeare St.,
Nottingham,
NG1 4FQ.

Participant Consent Sheet

1. I am aged 18 years or above.
2. I have read and understood the information sheet regarding the study.
3. I have had the chance to ask any questions to the researcher/director of studies.
4. I agree that I am happy to participate in this research and understand that I do not have to.
5. I agree my participation is of my own free will.
6. I understand that I can withdraw from the study at any point and don't need to explain why.
7. I have received both the researcher and their director of studies contact information should I have any further questions or want to withdraw from the study at a later date.
8. I understand that all personal information I provide will be kept confidential and that no information will be made publicly available that could identify me.
9. I understand that if I withdraw my data from the study before the date below then it will not be used at all, but if I withdraw my data after that date it will be used in the PhD but not in other publications.

The date for withdrawing the data will be one month after completion of both the interview and the mapping task (add specific date).

Agreement to consent

I voluntarily consent to participate in this study. In completing this form I certify that I am 18 years of age or older. I have been given a copy of this consent form to keep.

_____ _____

Participant name Date

I certify that I have presented the above information to the participant

_____ _____

Researcher's signature Date

Appendix IV: Social group memberships throughout recovery from an Eating Disorder?

Participant Debrief Sheet

Thank you for taking part in this study.

Please feel free to ask any questions you may have either now or via email at a later date. This survey conducted to find out how information on the social groups people recovering from an eating disorder and how groups and relationships change throughout the journey of recovery.

Should you feel that you have been upset or are concerned about any of the topics discussed throughout this study, I would just like to provide you with some relevant websites and contact details for support:

Support and informational websites:

First Steps: Local Eating Disorder charity in Derbyshire.

Website: http://firststepsderbyshire.co.uk/

Contact Number: 01332 367571

Email Support: info@firststepsderbyshire.co.uk

Address:

First Steps Derbyshire, Ingham House, 16 Agard Street, Derby, DE1 1DZ

Beat:

Websites: https://www.b-eat.co.uk

https://www.b-eat.co.uk/support-services/local-support-group

Helpline: 0808 801 0677

Email Support: help@b-eat.co.uk

National Centre for Eating Disorders:

Website: https://eating-disorders.org.uk/

Eating Disorder Hope:

Website: https://www.eatingdisorderhope.com/

Eating Disorders Support:

Website: www.eatingdisorderssupport.co.uk/help/links-resources

Helpline: 01494 793223

I would like to just remind you that before the start of the survey you were provided with a unique number, in which your data from the survey will be associated with. If at any point before a month after the interview (specific date here) you do wish to withdraw your information from this study, please get in touch through the contact details at the bottom of this page. If this is the case, all you would need to do is contact myself/my director of studies and provide the unique number to you, there is no need to explain why you wish to withdraw, as this is your right to do so.

Once again, I wish to thank you for participating in this research, if you wish to be kept up to date with the results of the research please do let me know.

Contact information:

PhD Researcher Details:
Jade Streete
Email: jade.streete2016@my.ntu.ac.uk

My Director of Studies Details:
Dr. Niamh McNamara
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Appendix 5: Social Identity Mapping Procedure

Social Identity Mapping: Either pen and paper or online version:

Talk the participant through the procedure and what the map is looking at.

Social identity mapping involves the creation of illustrative maps on large sheets of paper, depicting a network of social group memberships which are represented by three different sized post-it notes. The three sizes indicate the level of importance each group holds to the individual, therefore the bigger the post-it the more important it is. By doing this you can gauge the total groups and the number of the important groups. Following this, participants give a score (1-10) of how representative they are of the group and record that score in the top-left corner of the post-it. In the top-right corner they record the number of days throughout a month (0-30) they typically participate in group-related activities. Next, they rate (1-10) how well they understand what the group is about and document this in the bottom-right corner. Finally, the bottom-left corner of each post-it will be a number (1-10) representing how positive it is to them to be part of the group. Once completed, post-its' are placed on the paper showing how similar they are, the closer the more similar the groups. The very last stage is to connect the post-its by lines, the straighter the line the easy it is to maintain membership to the groups.

Explain that the groups are whatever they believe themselves to be a part of.

Discussion of the map will take place throughout, questions will be for each group:

So, could you think of some groups that you belong to and for each group can you write them down on individual post-it notes. To show how important each of the groups are to you, the most important groups go on the largest post-it, the moderately important groups go on the medium sized post-its and less important groups go on the small sized notes.

Did you find it easy to work out which sized sticky notes matched your groups? If not, why do you think that?

Now, for each of the groups write in the top left corner how representative you are of the groups from 1-10 (1 not typical, 10 extremely representative). So, when you think of the group you are a typical member?

How many days a month do you think you take part in activities related to the group? (0-30 is the range – everyday would be 30, once a month would be 1). Now you've thought about it, write it in the top right corner, activities don't need to be big they can be small, they can be anything you think is relevant.

Now, in the bottom right corner write how clearly you know what every group is on a scale of 1-10 (1 being no knowledge and 10 would be very high knowledge). So, when you think about that group, would you be able to tell me what it is about, what you do with the group and what the group stands for?

In the last corner could you write how positive you feel about being a member of the group (1 would be not at all positive whereas 10 would be completely positive). For the groups which you have said you feel very positive about being part of can you tell me why this is? Prompts: What do you think you get from the group? What do you give to the group?

So, looking at your groups, could you have a think about the amount of support you get from these groups. Are there any major differences between them? Are some more or less supportive than others. Do you think that these groups are any different to when you were living with your eating disorder? If so which ones? Would you talk to me about why you think this?

Once this has been done for each group, we will look at similarity of your groups. So, some groups are very similar while others are not so. So, on the A3 sheet I want you to arrange all your groups to show how similar or different they are. The more similar groups are the closer they would be on the paper.

The final part of the map is to look at how you manage these groups. Basically, how you can be part of all the groups. So, to show this on the map you should connect the groups together by lines which represent how easy or difficult you find to be a member of the groups. So, for groups you find it easy to be member of connect the groups with a straight line. For groups that you find moderately easy to manage memberships connect them with a wavy line. Finally, for groups that you find difficult to be a membership to manage then connect the groups with a jagged line. Not all groups have to be connected, only connect groups to groups which you think you can connect.

So now looking at your map, do you think that these groups give a good idea of who you are? *USE EXAMPLE FROM THEIR MAP TO HELP IF NECESSARY* If not, would you like to change anything? If so what and why?

So, looking at your completed map, are you happy with it? Are there any aspects you would like to change? If there are, what and why would you do this?

Thinking about where you are in your life, do you think that in the future your map will keep changing? Or do you think that it will stay relatively the same? If you think it will change, in what ways?

After completion of the map:

I will ask for any final comments. I will also remind participants on what the aims and purpose for the study was while providing them with the debrief sheet. I will also ask them if they have any questions or issues they want me to be aware of or ask. Ensuring that they are aware of their rights to withdraw and contact me regarding the study outcomes should they wish to know the outcomes.

So, if you put in your map code and then you click on start new map.

What you should see is a yellow circle with a plus sign in the middle, if you see that you will also see a box with a button saying end tutorial. If you click end tutorial I will then talk you through the steps as sometimes this wants you to do things differently to the way I do it.

So, click on the plus sign and up will pop a box titled new group. If you click on those words you should be able to name it whatever group you can think of to begin with. Fabulous, so if you click the add sign again it will add you another group if you name that again and move the box so that it's off the other group. To move it click on those three little lines on the top and drag the group somewhere else.

Fab, then if you keep adding groups that you can think of that would be great. So, groups are things like family, high school friends, hobby groups, work teams and things like that.

So, if you think about all of the groups you've got on your map so far. Do you think they're all of the same importance to you?

Why do you think that?

Okay, so if you look at the boxes you will see that inside each of them there are three squares on the bottom right corner, these three sizes will show how important the group is to you. So, put the names of very important groups in the biggest size, then those that are moderately important to you in the middle size and those that are least important in the smallest size. Does that make sense?

So, have you put any in the largest size? If so, which ones and why are they the most important? What about the ones that you have put in the middle and smallest size? Why are they that do you think?

Next, you see the red bar at the bottom of each of your groups? Click on the red bar and on the right-hand side of your screen you should see some simple questions pop up.

What I need you to do is move the slider underneath each of the four questions. As you move it you will see a number appear on the line, slide to the number that corresponds to your chosen answer. The numbers will then appear at the bottom of the group box.

So, the first question is how positive do you feel about belonging to this group? This question is out of five.

The next question is about how representative you are of the group. This is out of five again. So, what this question basically means is how typical are you of the group? Are other members of the group really similar to you or not? If they are then you would put a higher number.

The next question is about how many days a month that you spend on activities related to the group. This one is out of 30, so each number represents a day of the month. So, if you were to do things with other group members, or for the group (e.g., planning events, going to meetings things like that). So, the more days you spend a month with the group on average the higher the number will be.

The final question is about how supportive this group is about your eating disorder recovery. So, basically does this group support your recovery, are they really supportive, helpful, and glad you are in recovery. Or do they prefer the eating disorder? The more a group supports your recovery the further right on the bar it is. They don't need to necessarily vocalise their support for each one it is you perception of whether they support your recovery or not.

What would be good is if you do this for all of the groups you have got now. So, if you answer those four questions for the groups you've got.

Now, so, the next part is to think about positioning your groups on the page. Basically, if the groups are similar to each other then, place them close together but not touching. If they are really different them probably put them on opposites sides of the page. So, for example, you may have two groups that are similar but might not be related to the third group like for some people family and work teams can be very different from each other, but friends and work teams can be similar. So, move these around freely until you think you've got it right. But it is flexible and you can keep changing them as many times as you need to.

So, now looking at the map with the groups placed in similarity to each other, the last stage is to show how easy or difficult it is to be a member of different groups at the same time. I'll give you an example, if you were a member of a football team it may be easy to also be a member of your family but it may be difficult to be a member at a squash club because their meetings may clash and they want different things from you at the same time.

So, to show this on the map I want you to click on a group and on the left-hand bottom corner there is a little symbol almost like a little chain, click on that and drag it to another group. Then a

line should appear between the groups. If you click on the line between the groups you should see a love heart, a smiley face, a straight face and an unhappy face. These will show the difficulty level of being members to both the groups at the same time. The easier it is it will be a smiley face or a love heart and if it is really difficult you would put the unhappy face.

So, have a go at doing those for me.

Fab, so now looking at your completed map, do you think that your groups provide a reasonable idea of who you are? So, if your links to your family groups are stronger than your work links do you think this strong sense of family captures a large part of your identity? The way that you see yourself?

Do you think it provides a reasonable picture of your social world? If yes, why do you think that? If no, why not and what do you think is missing? Feel free to make any changes you need to.

So, are there any parts of your map that are positive for you? Can you talk to me about why you think that? Have you got any specific experiences with the groups on your map you would like to talk about? How have they been important on your journey into recovery? Are there some that haven't been important to your recovery? Are there any that have hindered your recovery?

Are there things that you don't like about your map? Anything that you would like to change if you could? Would you like some groups to be more/ less important to you? Would you like to spend more/ less time with any of the groups? Do you wish that some were more supportive of your recovery? Can you talk me through them a little bit?

If you were to be struggling with things which of these groups, if any, would you turn to? Why do you think that is? If you were struggling with worries about your recovery who would you tell? If you had positive news about your steps through recovery who would you tell? Why do you think that is?

Do you think if you had made this map when you were living with your eating disorder that it would look like this? Why do you think that?

Do you think that your map will stay the same in years to come?

Because of lives change, it's natural for the people and our groups to change with it. Do you think there are parts of the map you would be quite happy to have change? Are there parts of the map that you hope will remain the same?

Appendix 6: Study 1 Interview Schedule

Discussion around life before the eating disorder:

Could you talk to me about what your life was like before you noticed things started to change with your eating habits? Prompts: your work/ school life

Do you remember when you first started to notice changes in your thoughts about food?

Did you talk to anyone about these changes? Can you tell me why?

Do you think that others were aware of any changes you were going through? Did they speak to you about them? Can you talk me through why you felt/ did this?

Can you talk to me about your social life when you noticed these changes to your thoughts and behaviours around food? Prompts: Did you feel differently to any aspects of that life? Can you talk about what parts of your life you think were affected by this? Was anything not affected?

When you believed you had your illness/were diagnosed, what was it like? Prompts: for yourself, your family, and friends. How did it make you feel?

Living with the eating disorder:

Were there any changes in your life when you were living with your eating disorder compared to before you noticed it? Prompts: personally, and socially?

Do you think that your ED affected your life? Can you tell me in what ways? Also, why you think/feel that?

Can you talk to me about your social life while you were living with your eating disorder? Prompts: Any changes? What kind of things you were interested in? What were your friends and family like?

Can you talk about when you thought about getting help? Prompts: Did you ever explore online eating disorder sites?

What kind of help have you received? Prompts: did you get a clinical diagnosis or self-assessment? Did you make the decision to seek help yourself?

Recovery:

What does recovery mean to you? Prompts: what does someone in recovery feel, think, do?

When did you believe that you were in recovery? Prompts: Can you tell me what it was like? Is it what you expected? Do you not think you are?

Can you tell me about what changed for you when you reached that point? Prompts: emotionally, personally, socially *can tailor the question depending on the participants answer to the previous question*

Do you feel that aspects of recovery been difficult? Prompts: Such as what?

Where in your recovery do you believe you are? Prompts: Do you think there are stages, or are you just in recovery? Do you feel like you a fully recovered?

Do you think that your social life has changed in any way since you reached this stage? Prompts: Has anything not changed? Have your friends and family been part of this journey? Is there anything that has been maintained throughout your experience?

Have you learned anything that will help you maintain recovery? Prompts: Any coping strategies? Any tips and tricks you have picked up? What helps you personally?

What is next in store for your life? Prompts: social plans? recovery related plans?

Final questions:

Is there anything else you want to talk about for me to best understand your experience?

Do you have anything that you would like to ask me?

Appendix 7: Study 2 Adverts:

Example email template sent to charities:

Dear sir/madam,

My name is Jade Streete, I'm e-mailing you about a study that I'm going to be conducting for my PhD in Psychology. The study is about investigating social identity change in recovery from disordered eating over a six-month period. This study is a questionnaire study which can be accessed online via the link at the bottom of the email. I am looking the dynamics of people social groups throughout their recovery journey. The study will be focused around the support, contact and identification people have to their social groups. There will be more generic questions about demographic information, also questions around their current disordered behaviours and general well-being. I am trying to recruit people who believe they are recovering from disordered eating on any level, be that a clinical eating disorder or those who have concerns about their eating behaviours and thoughts. This is a longitudinal study and those who take part in this initial survey they will be asked if they are happy to be contacted in six-months' time to complete the final online survey.

If you have any questions I am more than happy to explain in more depth should you wish to know more.

I have ethical approval from Nottingham Trent University. I am enquiring as to whether you think you could be able to help me advertise my study?

If you would like to know some more information or be willing to aid me in my recruitment, please don't hesitate to contact me or my director of studies by the email addresses below.

https://tinyurl.com/ya2yoe2u

Thank you for taking the time to read my email. I hope to hear from you.

Kind regards,

Jade Streete
Contact Details: jade.streete2016@my.ntu.ac.uk

My Director of Studies Details:
Dr. Niamh McNamara
Email: niamh.mcnamara@ntu.ac.uk
Telephone: 0115 848 4346

Department of Psychology
Nottingham Trent University
50 Shakespeare St.,
Nottingham,
NG1 4FQ.

Advertisements for charities to distribute:

Social group memberships throughout recovery from disordered eating.

Are you concerned about your eating behaviours and thoughts?

Are you aged 18 or above?

Would you like to take part in research?

If the answer to these questions is yes, then please take the time to read this information about a study that you may be interested in.

My name is Jade Streete, I am a PhD student studying at Nottingham Trent University and I am looking for participants who are recovering from disordered eating. This study will involve an online questionnaire, in which questions will ask about your social groups, any disordered eating behaviours and thoughts alongside general well-being, (more information is provided by following the link below, and by contacting me or my director of studies via the email address below). This study is a longitudinal study and if you complete this initial survey you will be asked if you are happy to complete another survey in six months. This will allow me to better understand the social groups involved throughout this six-month period of your recovery journey.

Please if you are interested in reading more about the study and taking part, read click the link below and read the information about this study and please contact me or my director of studies with any queries you may have about the study.

https://tinyurl.com/ya2yoe2u

Contact information:

PhD Researcher Details:
Jade Streete
Email: jade.streete2016@my.ntu.ac.uk

My Director of Studies Details:
Dr. Niamh McNamara
Email: niamh.mcnamara@ntu.ac.uk
Telephone: 0115 848 4346

Department of Psychology
Nottingham Trent University
50 Shakespeare St.,
Nottingham,
NG1 4FQ.

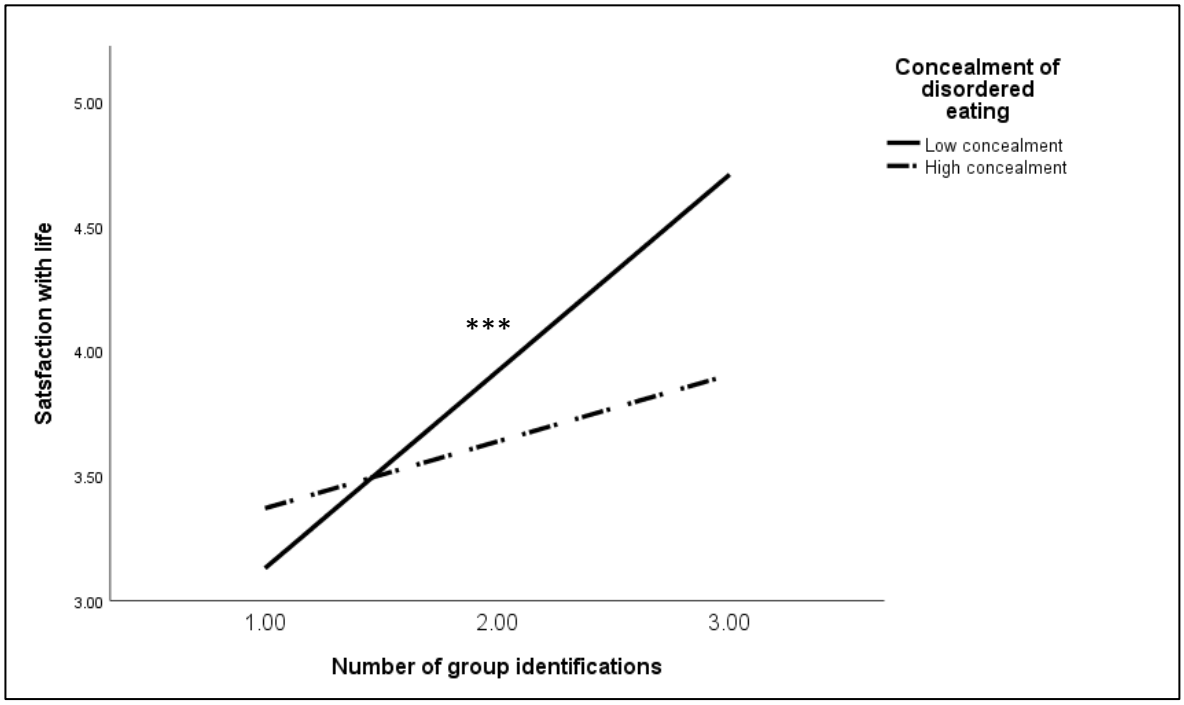
Advertisements for social media:

Social group memberships throughout recovery from disordered eating.

I am recruiting participants for an online survey study for people over 18 recovering from disordered eating or an eating disorder. I am exploring the role of social group memberships throughout recovery. If you are interested in taking part more information on the study and my contact details can be found via this link [SURVEY LINK].

Appendix 8: Study 2a: Concealment moderating the relationship between number of group identifications and mental health/well-being Simple Slope Graphs

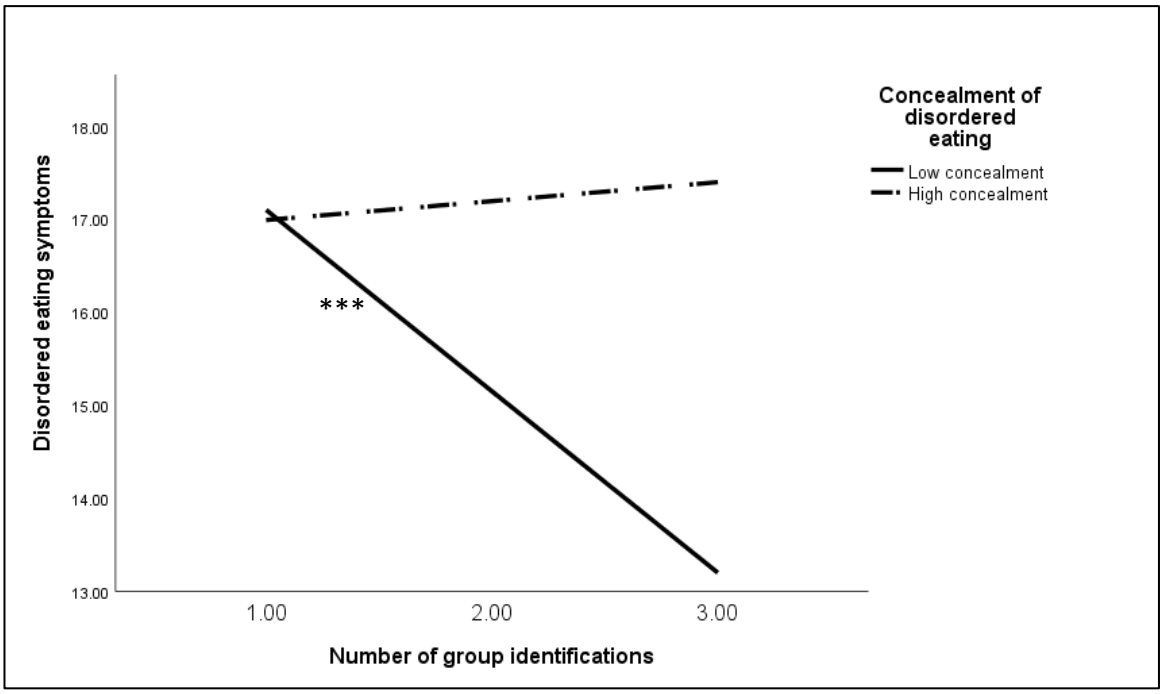
Concealment Moderating the Relationship Between Number of Group Identifications and SWL



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between the number of group identification and satisfaction with life.

Note: *** $p < .001$

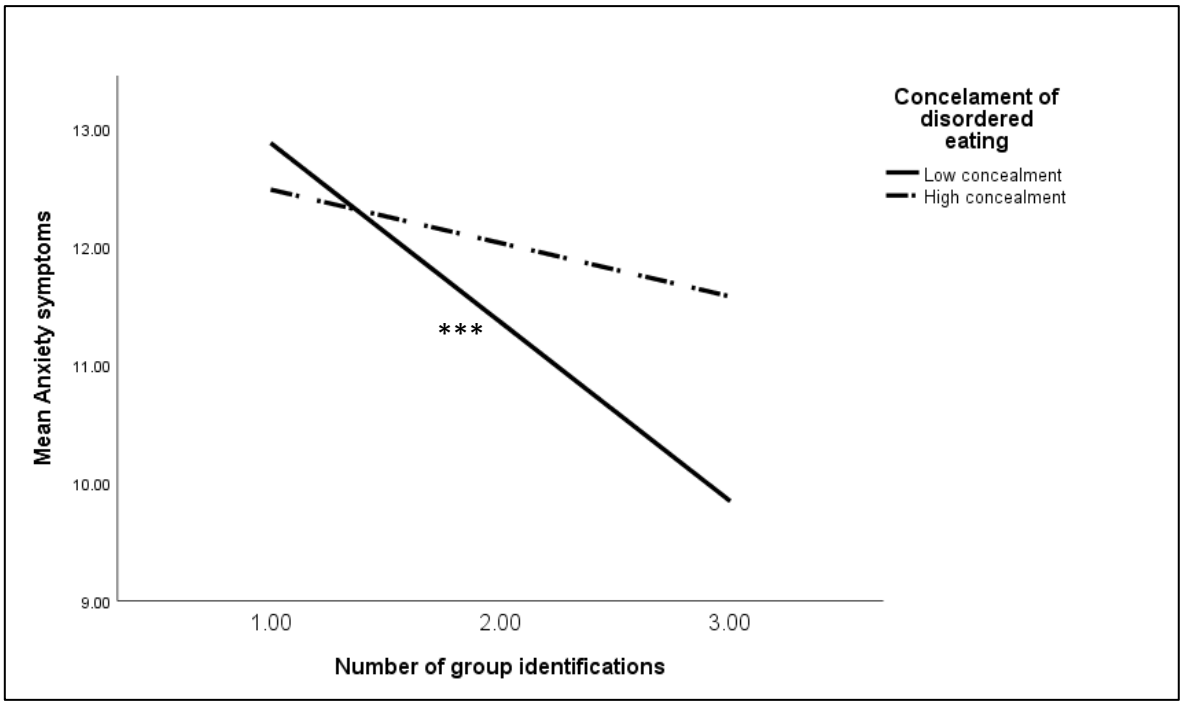
Concealment Moderating the Relationship Between Number of Group Identifications and Disordered Eating Symptoms



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between the number of group identification and disordered eating symptoms.

Note: *** $p < .001$

Concealment Moderating the Relationship Between Number of Group Identifications and Anxiety Symptoms



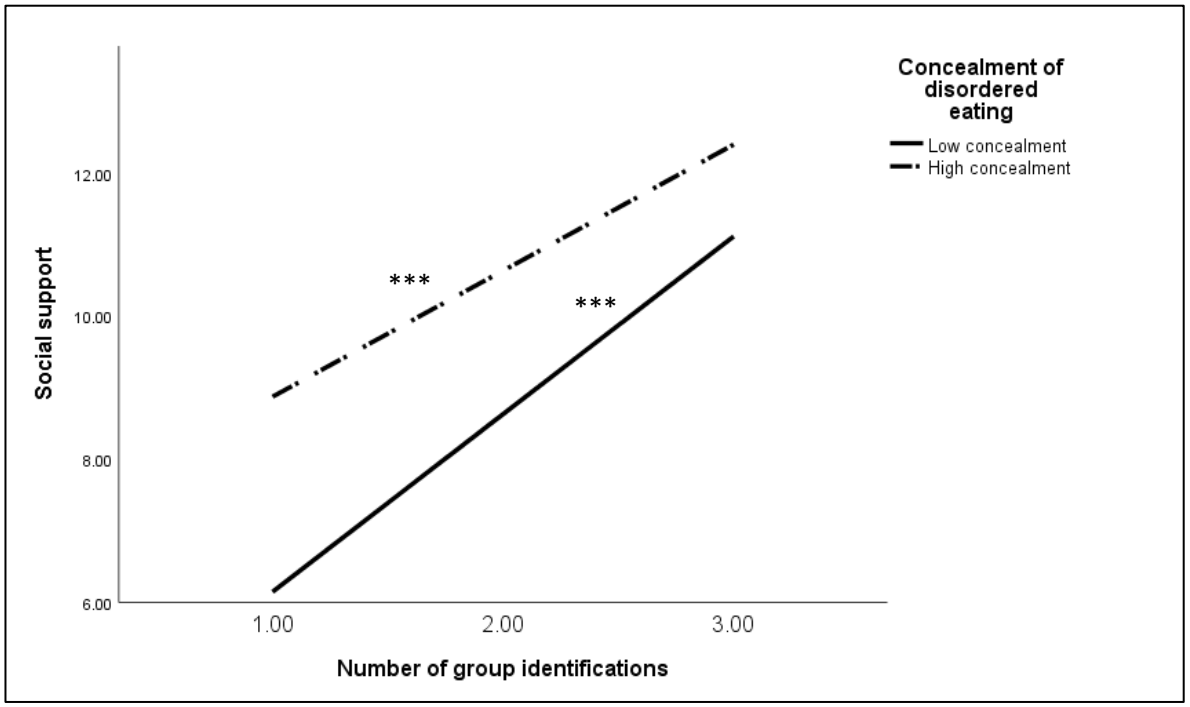
Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between the number of group identification and anxiety symptoms.

Note: *** $p < .001$

Appendix 9: Study 2a: Concealment moderating the relationship between number of group identifications and social support simple slopes

Simple Slopes Exploring the Moderating Effect of Concealment on the Relationship between Number of Group Identifications and Social Support

A simple slopes analysis was conducted to further explore the significant moderating effect of concealment of disordered eating on the relationship between number of group identifications and social support (as shown in figure 5.5). There was a significant positive relationship between number of group identifications and social support when concealment was low (-1SD), (*b* = 2.48, *SE*= .26, *t*= 9.68, *p*< .001, *LLCI*= 1.98, *ULCI*= 2.99). This relationship was present (albeit weaker) when concealment was high (+1SD) (*b* = 1.76, *SE*= .28, *t*= 6.39, *p*< .001, *LLCI*= 1.22, *ULCI*= 2.31).



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between the number of group identification and social support within the moderated mediation model.

Note: *** *p*< .001

Appendix 10: Study 2b: Non-Significant Repeated Measures *T*-tests

Number of group identifications (T1: *M* = 1.60, *SD* = 1.07, T2:*M* = 1.84, *SD* = 1.12, *t* (98) = -2.49, *p* = .02)

Recovery identification (T1:*M* = 4.56, *SD* = 1.84, T2: *M* = 4.81, *SD* = 1.45, *t* (98) = -2.09, *p* = .04)

Social support (T1: *M* = 9.07, *SD* = 3.73, T2: *M* = 9.49, *SD* = 3.83, *t* (96) = -.99, *p* = .33)

Concealment of disordered eating (T1: *M* = 6.91, *SD* = 2.65, T2: *M* = 6.36, *SD* = 2.63, *t* (95) = 1.87, *p* = .07)

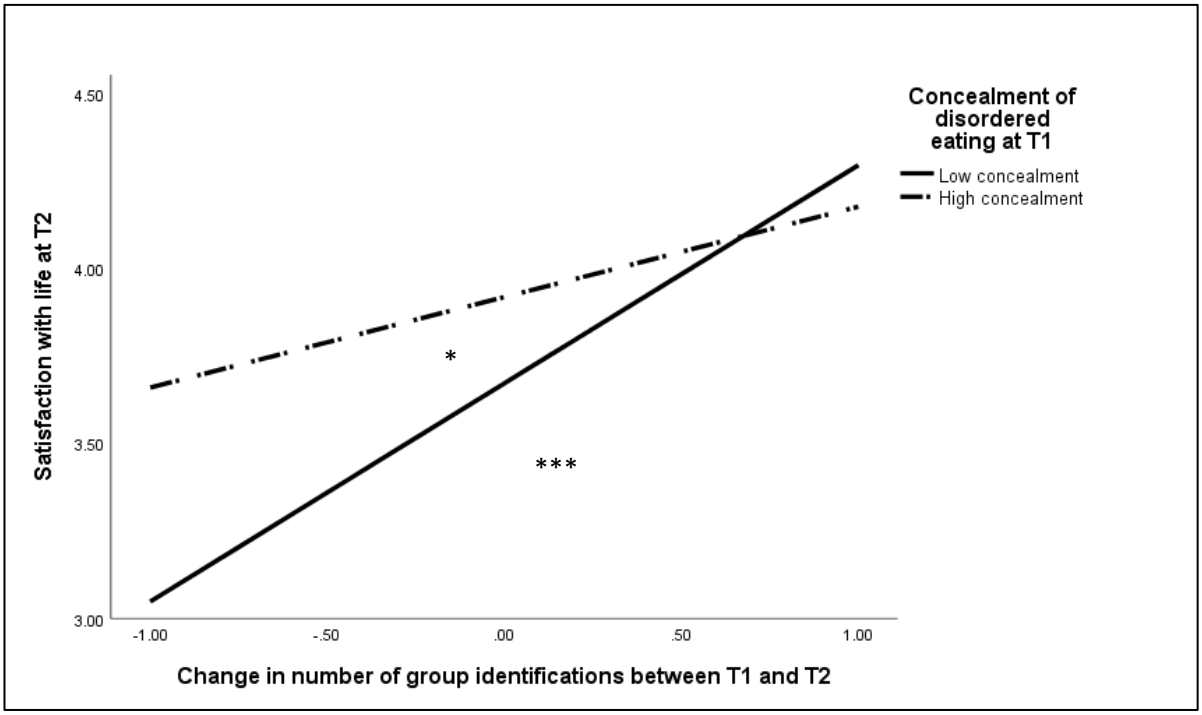
Group compatibility (T1: *M* = 4.63, *SD* = 1.22, T2: *M* = 1.94, *SD* = 1.19, *t* (98) = -2.30, *p* = .02)

Disordered eating symptoms (T1: *M* = 16.60, *SD* = 4.25, T2: *M* = 18.05, *SD* = 12.63, *t* (98) = -1.44, *p* = .15)

Anxiety symptoms (T1: *M* = 12.40, *SD* = 4.05, T2: *M* = 11.46, *SD* = 4.38, *t* (98) = 2.59, *p* = .01)

Depression symptoms (T1: *M* = 8.06, *SD* = 4.20, T2: *M* = 7.13, *SD* = 4.60, *t* (98) = 2.62, *p* = .01).

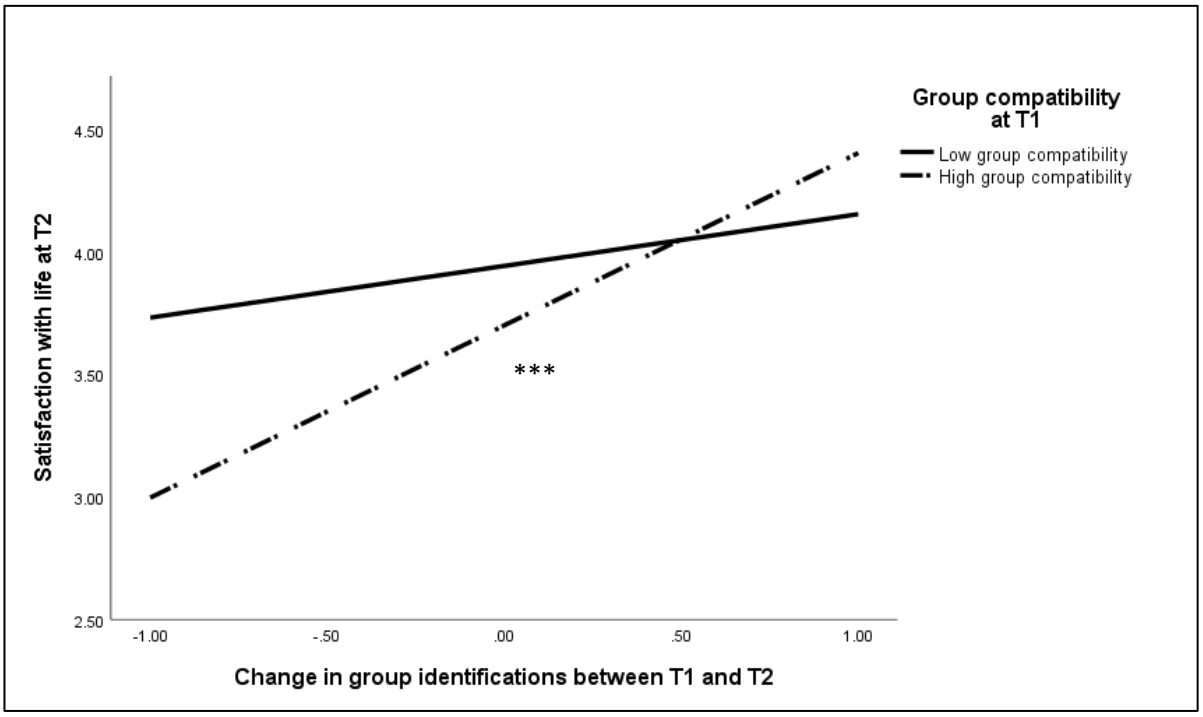
Appendix 11: Study 2b: T1 Concealment moderating the relationship between change in number of group identifications over time and T2 SWL



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between change number of group identification and satisfaction with life at T2.

Note: *** $p < .001$, * $p < .05$

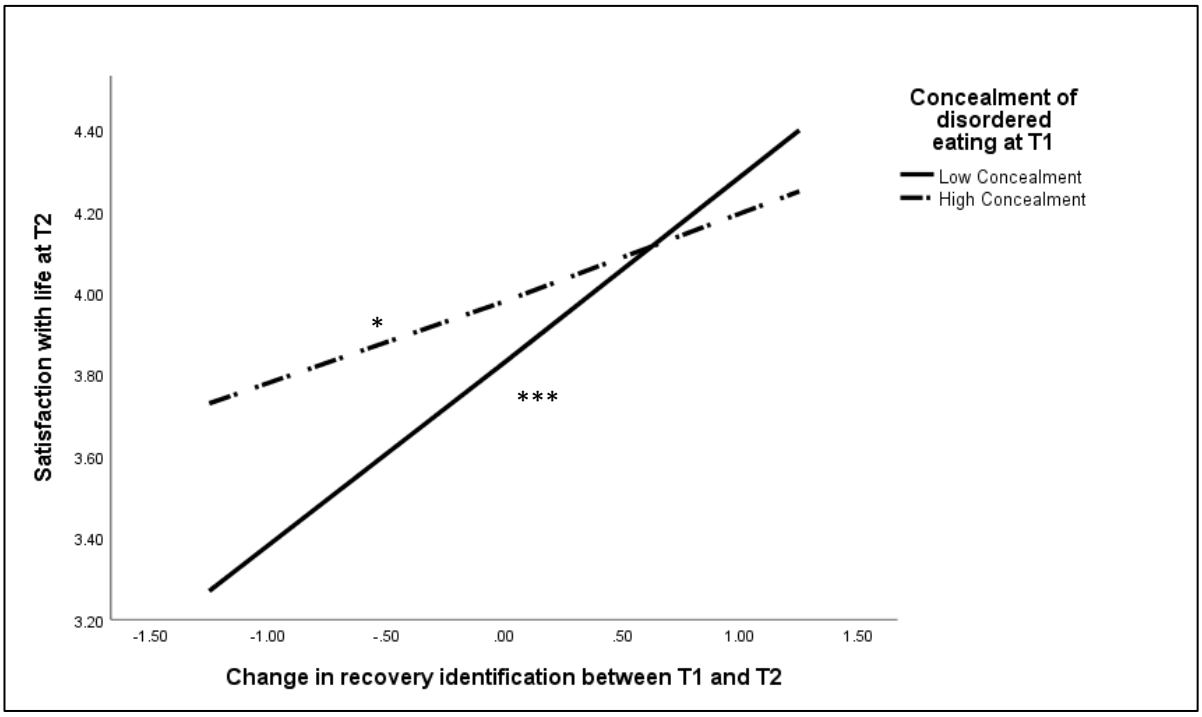
Appendix 12: Study 2b: T1 Group Compatibility Moderating the Relationship Between Change in Number of Group Identifications Over Time and T2 SWL



Simple slopes analysis of the moderating effect of group compatibility on the relationship between change number of group identification and satisfaction with life at T2.

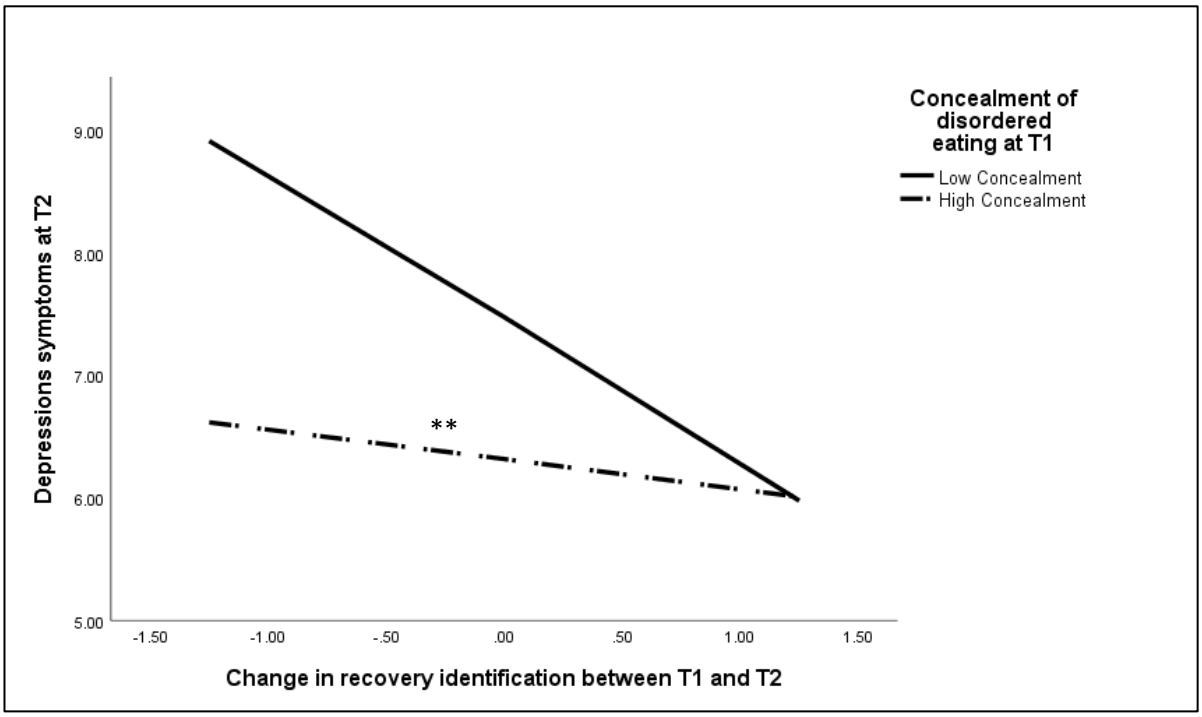
Note: *** $p < .001$

Appendix 13: Study 2b: T1 Concealment Moderating the Relationship Between Change in Recovery Identification Over Time and T2 Mental Health/Well-Being.



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between change recovery identification and satisfaction with life at T2.

Note: *** $p < .001$, * $p < .05$



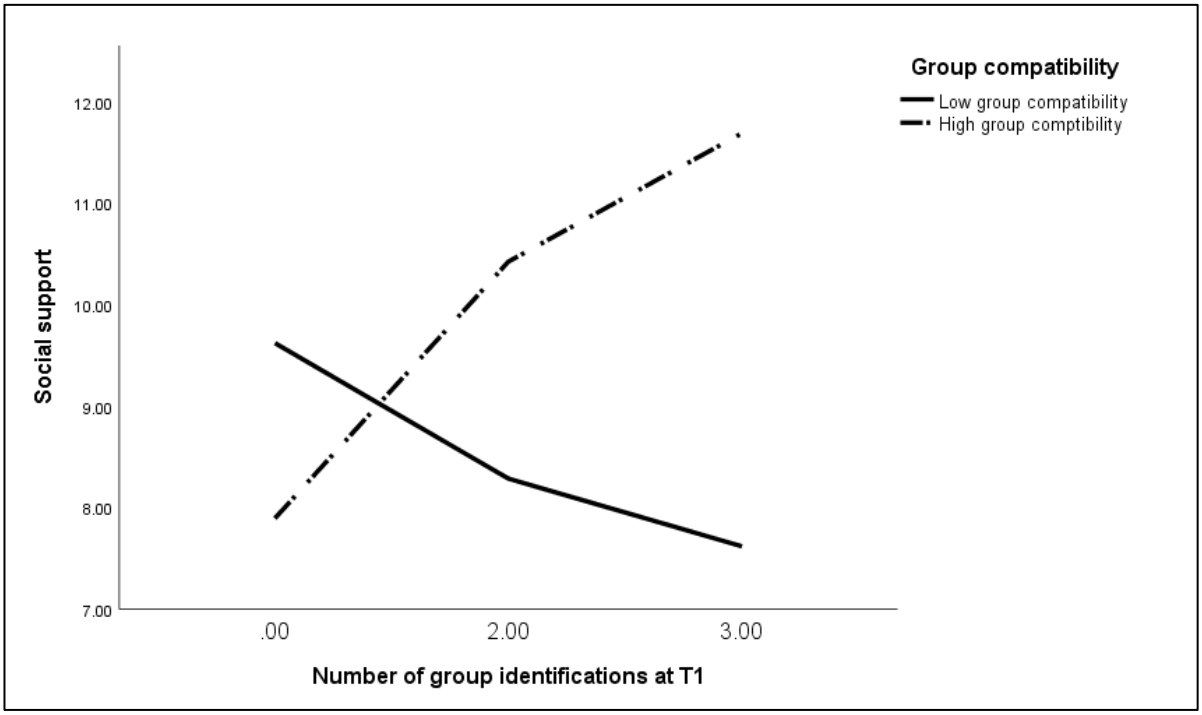
Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between change in recovery identification over time and T2 depression symptoms.

Note: ** $p < .01$

Appendix 14: Index of Moderated Mediations exploring T1 concealment as a moderator on the mediating effect of T1 number of group identifications on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
T1 number of group identifications x T1 concealment	.02	.02	-.01	.05	-.07	.08	-.28	.04	-.04	.04	-.12	.16	-.05	.04	-.15	.03

Appendix 15: T1 Group Compatibility moderating the relationship between T1 number of group identifications and social support simple slopes graph



Appendix 7.3. Simple slopes analysis of the moderating effect of group compatibility on the relationship between the number of group identification held at T1 and social support within the moderated mediation model.

Note: * $p < .05$

Appendix 16: Index of Moderated Mediations exploring T1 group compatibility as a moderator on the mediating effect of T1 number of group identifications on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
T1 number of group identifications x T1 group compatibility	**.06***	**.04**	**.01**	**.15**	-.21	.23	-.79	.14	-.11	.08	-.31	.02	**-.19***	**.10**	**-.45**	**-.04**

Note: *p< .05

Appendix 17: Index of Moderated Mediations exploring T1 concealment as a moderator on the mediating effect of change in number of group identifications over time on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Change in number of group identifications over time x T1 concealment	-.01	.01	-.04	.01	-.003	.06	-.10	.17	.01	.03	-.02	.08	.02	.03	-.02	.10

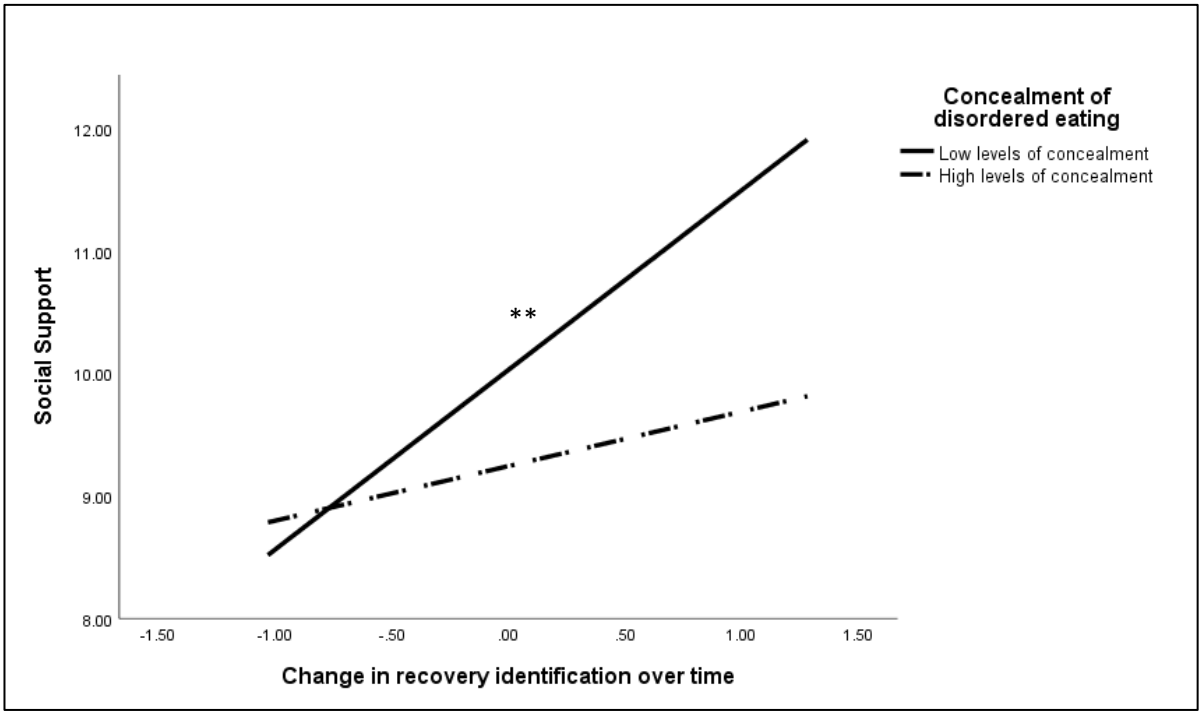
Appendix 18: Index of Moderated Mediations exploring T1 group compatibility as a moderator on the mediating effect of change in number of group identifications over time on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Change in number of group identifications over time x T1 group compatibility	.01	.03	-.02	.09	.01	.13	-.25	.30	-.04	.05	-.13	.07	-.03	.06	-.18	.07

Appendix 19: Index of Moderated Mediations exploring T1 concealment as a moderator on the mediating effect of change in recovery identification over time on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Change in recovery identification over time x T1 concealment	-.01	.01	-.03	.003	.04	.06	-.07	.17	.03	.08	-.01	.07	.04	.03	-.01	.10

Appendix 20: Study 2b: T1 Concealment Moderating the Relationship Between Change in Recovery Identification Over Time and T2 Social Support.



Simple slopes analysis of the moderating effect of concealment of disordered eating on the relationship between change in recovery identification over time and social support.

Note: ***p*< .01

Appendix 21: Index of Moderated Mediations exploring T1 group compatibility as a moderator on the mediating effect of change in recovery identification over time on T2 mental health/well-being via T2 Social Support

Predictor variables	Satisfaction with life				Disordered eating symptoms				Anxiety symptoms				Depression symptoms			
	Index	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*	*Index*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Change in recovery identification over time x T1 group compatibility	.02	.02	-.01	.05	-.07	.07	-.28	.04	-.04	.04	-.12	.16	-.05	.04	-.15	.03