An Exploration of Climate within Secure Settings Accommodating Children

Lauren Aspey

A thesis submitted in fulfilment of the requirements of Nottingham Trent University for the Professional Doctorate in Forensic Psychology

September 2020

Acknowledgments and Dedication

Firstly, I want to thank all the children that volunteered to participate in this study. Without your participation and contributions this thesis would not have been possible. I wish you all the best for your future.

I would like to express my gratitude to my academic supervisors, Dr. Richard Trigg and Dr. Karen Slade for their continued advice, support and feedback throughout my doctoral journey.

I also want to say thank you to Her Majesty's Prison and Probation Service (HMPPS) and Psychology Services who have provided me with the funding to complete this work. Furthermore, thank you to Youth Custody Service who have granted me permission to undertake this research within our YOIs.

A heartfelt thank you to my parents who have supported my journey as a Forensic Psychologist for many years. Your love and support have made this journey possible. Finally, I would like to thank my friends who provide me with consistent friendship, love, support and encouragement.

This thesis is dedicated to all those trying to better the lives of children within the Criminal Justice System.

Abstract

This thesis explores the concept of climate within secure settings accommodating children. Specifically, it concentrates on reviewing existing measures of climate for their appropriateness for use in secure settings accommodating children and exploring children's perceptions of the factors influencing climate within Her Majesty's Young Offender Institutions (HMYOIs).

Chapter One of this thesis provides a context by introducing Her Majesty's Prison and Probation Service (HMPPS) Youth Custody Service (YCS) and the reforms currently taking place. It explores the number of children within custody both internationally and in England and Wales specifically, the statistics regarding levels of violence and reoffending within youth custody and the organisational response to these. It then explores definitions of climate and the impact of climate in secure settings on individuals residing within it. Specific attention is given to the literature regarding the impact of climate on children's violence within secure settings and treatment efficacy. Finally, it explores how climate is currently measured and introduces the specific aims of the thesis.

Chapter Two presents a systematic review of the existing literature with the overall aim of identifying what measures have been used to assess perceptions of climate within secure settings accommodating children. Specific objectives were to examine how climate has been defined within such settings, explore what measures have been used to evaluate perceptions of climate and evaluate the evidence regarding the psychometric properties of those measures. The results indicated that definitions of the concept of climate were limited and those that were provided were found to be lacking consistency. Evidence of varying degrees of the psychometric properties of measures of climate were identified. But following assessment of the methodological quality, the quality of the psychometric properties including internal consistency, factor structure, reliability, validity, or responsiveness, and the overall quality of psychometric properties it was concluded that there was no substantive support for any of the measures. The implications for future research and forensic practice in utilising measures of climate are discussed.

In order to further develop the literature regarding conceptual frameworks of climate relevant to secure settings accommodating children, Chapter Three explores the factors perceived by children as influencing climate within secure settings, specifically HMYOIs. Three overarching themes were identified in response to direct questions regarding climate and what influences this; 1. Staff, 2. Violence and Safety, 3. Relationships and a further five themes; 4.

Resources, 5. Regime, 6. Punishments and Rewards, 7. Inclusion and 8. Future Orientation. The analysis provided a greater understanding of the factors that influence climate within secure settings as perceived by children. The study has provided further support for the existing international literature around the factors characterising open and closed climates within secure settings accommodating children and therefore the development of a child specific conceptual framework of climate was discussed. The Conceptual Framework of Climate for Children (CCFC) that conceptualises what factors influencing climate are important and relevant to children within secure settings was therefore proposed. Furthermore, the study's findings offer practitioners and policy makers new insights into the development of positive climates within secure settings accommodating children.

Chapter Four provides a critical discussion to conclude the thesis. This includes a review of the CFCC against the frameworks of five existing measures of climate to explore whether children conceptualise climate in a manner that differs from adults. It was concluded whilst there are similarities in the ways in which children and adults conceptualise climate there are also several differences and therefore the content of existing measures of climate is not entirely appropriate for use with children within secure settings. The chapter also identifies and discusses a potential theoretical framework. This is based on the work of Maslow (1943) and the argument for climate to be related to need fulfilment is made.

Contents

List of Tables

Chapter 2: What are the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children? A structured review and analysis.

Chapter 3: Research Project: "The weather is like a personality so there's weeks or there's months where the climate the weathers bad but then there's weeks or months where the climate weather is good": An exploration of factors influencing climate within secure settings as perceived by children accommodated within public sector HMYOIs.

Chapter Four: Conclusion

Appendices

Page

List of Figures

Chapter 2: What are the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children? A structured review and analysis.

Chapter Four: Conclusion

Chapter 1

Introduction to Climate Within Secure Settings Accommodating Children

1.1 Introduction

A child is defined as anyone who has not reached their 18th birthday (HM Government, 2015). As such throughout this thesis all those under the age of 18 will be referred to as children. There are several differences between children and adults these include physical, neurobiological and psychosocial differences. Infancy and adolescence are two of the most dynamic events of human growth and development specifically in relation to development changes within the brain. It has been identified that between the ages of 10 and 24 years the brain undergoes a 'rewiring process' and this affects areas of the brain associated with response inhibition, sensation seeking, risk perception and self-regulation (Arain et al., 2013; Richards, 2011).

When examining psychosocial differences Erikson's Theory of Psychosocial Development (1963, 1982, as cited in Shaffer, 2002) proposes that humans' experience conflicts at several points during their life. Each conflict is different. Children experience three conflicts between birth and the age of six. The first is basic trust vs mistrust, the second autonomy vs shame and doubt and the third initiative vs guilt. The successful resolution of these conflicts is influenced by key social agents that include the primary caregiver, parents and family. Between the ages of six and 12, the conflict is industry vs inferiority. Children must master social and academic skills during which they compare themselves to their peers. To achieve such skills will leave children feeling self-assured however failure to achieve will result in feelings of inadequacy. Teachers and peers are identified as the key social agents. The conflict between the ages of 12 and 20 is identity vs role confusion. Children struggle with the question of "who am I" and they must establish social and occupational identities. Not doing so will result in confusion over their roles as an adult. During this period peers are identified as the key social agents. Beyond the age of 20, key social agents include lovers, spouses, children, close friends and societal norms (Shaffer, 2002). The physical, neurobiological and psychosocial differences between children and adults are recognised throughout society including within the criminal justice system (National Conference of State Legislatures, n.d.). As such, in countries such as England and Wales, the custodial environment in which children are accommodated, and the support and care they receive there is different to the custodial environment in which adults are accommodated.

The official number of children held within custody worldwide is unknown. Ten years ago it was estimated to be over 1 million however, it was also acknowledged that due to the lack of appropriate records this was likely to be an underestimate (UNICEF, 2009). The United Nations Convention on the Rights of Children (UNCRC; United Nations, 1989) recommends 'the establishment of a minimum age below which children shall be presumed not to have the capacity to infringe the penal law' (p. 12). The United Nations (UN) rules on juvenile justice states 'those legal systems recognising the concept of age of criminal responsibility for juveniles, the beginning of that age shall not be fixed at too low an age level, bearing in mind the facts of emotional, mental and intellectual wellbeing' (United Nations, 1985, p. 3). The age of criminal responsibility ranges internationally from the age of seven to 18; England and Wales have set the age of criminal responsibility at 10 years old (UNICEF, n.d.).

England and Wales have previously been identified as having the second highest rates of imprisonment of children in Western Europe behind the Netherlands (Standing Committee for Youth Justice, 2010). In 2007, 225,000 children in England and Wales received either a caution or conviction. Of these, 106,000 were first time entrants to the criminal justice system and 5800 were sentenced to custody. The average monthly custodial population of under-18-year olds was 2909 (Taylor, 2016). In 2008, the UN Committee on the Rights of the Child (2008) documented their concerns regarding the number of children in custody within England and Wales, both remanded and sentenced, which they believed indicated the use of custody was not a last resort.

In response to these concerns the last 10 years have seen a significant reduction in the number of children being dealt with by the youth justice system within England and Wales. The number of first-time entrants has fallen by 85% and the number of children receiving a caution or custodial sentence by 83%. This has contributed to a long-term trend in the Youth Custody Service (YCS) population of around a 70% reduction. Less positive however, between April 2018 and March 2019, was the 12% increase in the number of children being held within custody on remand and the increase in violence against the person, accounting for 30% of all proven offences. In addition, the last five years have seen an increase in knife or offensive weapon offences and in the last 10 years the average length of sentence for indictable offences has increased from 11.4 to 17.7 months. Furthermore, between April 2018 and March 2019, the proportion of cautions or sentences given to Black children was 11%; three times that of the general 10-17 population. In the same reporting period children from a Mixed ethnic background accounted for 8% of those receiving a caution or sentence; two times that of the general 10-17 population. This has resulted in an over representation of Black and

Mixed ethnicity children within youth custody. Finally, between April 2018 and March 2019 the reoffending rate remained the highest for children released from custody, around 70%, compared to children who did not receive a custodial sentence. This is despite the reduction of children receiving a custodial sentence (Ministry of Justice, 2018; Youth Justice Board & Ministry of Justice, 2020).

Within YCS, statistics regarding behavioural management measures appear to be demonstrating negative trends. Between April 2018 and March 2019, there was a 16% increase on the previous year in the use of Restrictive Physical Intervention (RPI)[1] and an increase of 3% in self-harm; both are the highest number of incidents in five years. Between April 2018 and March 2019 whilst there was a decrease of five percent on the previous year in the number of assaults in Secure Training Centres (STCs) and Local Authority Secure Children's Homes (LASCHs) this is still 70% higher than five years ago. Also, during this period, there were 2400 assault incidents in Young Offenders Institutions (YOIs) (Youth Justice Board & Ministry of Justice, 2020). Despite the reduction in the number of children in custody these statistics, particularly those regarding children's behaviour in custody and on return to the community, are concerning. What therefore is currently being done, specifically within custody, in response to these statistics to ensure the safety of both children and staff working with them and to reduce the likelihood of children reoffending and returning to custody?

1.1.1 Organisational Response

Byrne and Hummer (2007) identified two responses to violence and disorder within secure settings. The first unethical and unviable response is to wait for the next significant event and then use this to gain support for the next stage of reform. The second option is to proactively develop a strategy that attempts to address the underlying cause of the problem(s). Her Majesty's Prison and Probation Service (HMPPS) is an executive agency of the Ministry of Justice (MOJ). In 2015, Charlie Taylor was appointed by the Secretary of State to undertake a review of the youth justice system. The aims were to explore and consider the evidence and practice in preventing youth crime, the rehabilitation of young offenders, exploration as to how the youth justice system could most effectively interact with wider children and adolescent services and consider whether the current provision was fit for purpose (Gove, 2015). The review was published in 2016 and consisted of 36 main

[1] A Restrictive Physical Intervention (RPI) is "any occasion in which force is used to overpower or with the intention of overpowering a child or young person. They should only be used on children and young people as a last resort" (Youth Justice Board & MOJ, 2020, pp. 50).

recommendations (Taylor, 2016). The Government responded and pledged their commitment to implementing the key recommendations across the youth justice system within both custody and the community (Ministry of Justice, 2016). As part of the Government response (MOJ, 2016) the Youth Justice Reform Programme was established to address Taylor's (2016) recommendations regarding custody. The two aims of the Reform Programme are to "make youth custody a place of safety, both for children and those who work there" and to "improve the life chances of children in custody" (MOJ & YCS, 2017, p. 2). To achieve these aims, four workstreams were established to focus on public-sector YOIs and set out over two phases. The first workstream was 'An Individualised Approach' with the overall aim being to create an integrated framework of care consisting of various services including Education and Healthcare. The second workstream was 'A Professional Specialist Workforce' with the overall aim being to create a "professional and stable" (MOJ & YCS, 2017, p. 2) workforce including an increase in both staff numbers and skillsets with a focus on the rehabilitation of children. The third workstream was 'Strong Leadership and Governance' with the overall aim being to develop leaders who create the right culture and can be held accountable. The fourth and final workstream was 'The Right Estate' that aims to create "the right estate" (MOJ & YCS, 2017, p. 3) consisting of smaller residential units and therapeutic environments (MOJ & YCS, 2017).

In conjunction with the programme of reform the YCS was established as a separate directorate within HMPPS with the aim "to contribute to an environment that helps children choose a crime free life and make positive contributions to society" (HMPPS, 2018a, Foreword section, para. 5). The YCS estate consists of three types of establishments managed by HMPPS public sector or private sector providers including YOIs, STCs and LASCHs where those under the age of 18 who have been either remanded or sentenced by the courts can be placed (MOJ, 2016; HMPPS & YCS, 2017). YOIs include both private and public-sector establishments designed to accommodate 15-17-year-old boys. STCs are designed to accommodate more vulnerable 12-17-year-old boys and girls and have a higher staff to children ratio compared to YOIs. LASCHs are the smallest facilities designed to accommodate 10-17-year-old boys and girls who are assessed as being significantly vulnerable (MOJ, 2016; Taylor, 2016). Some children aged 18 will remain in the YCS to avoid disrupting their regime if they only have a short period of their sentence left to serve whereas those with longer sentences will transition into the young adult/adult estate (HMPPS & YCS, 2017).

In recognition of the complex and challenging needs of children in custody, the YCS 2018-2019 (HMPPS, 2018b) and 2019-2020 (YCS, 2019a) business plans highlighted the key aims including the implementation of the youth justice reforms and to improve safety. To

enable them to achieve these aims the YCS planned to implement the YCS Behaviour Management Strategy (BMS) to reduce violence and improve safety outcomes for children and staff, develop and expand the provision of Enhanced Support Units[2] (ESU) and work in partnership with relevant stakeholders to implement SECURE STAIRS. The implementation of SECURE STAIRS was also identified within The Children and Young People Secure Estate National Partnership Agreement (HM Government & NHS, 2018). SECURE STAIRS is a framework for integrated care that aims to "support trauma informed, and formulation driven, evidenced-based, whole system approach to creating change for young people within the children and young peoples' secure estate" (Taylor, Shostak, Rogers & Mitchell, 2018, p. 195). The principles of the SECURE STAIRS framework include the recognition of staff as being pivotal to the development of environmental and relational conditions and acknowledges the impact this can have on staff wellbeing (Taylor et al., 2018).

As new custodial initiatives the individual elements that make up the overall YCS BMS have been or are in the process of being evaluated to verify both cost and impact effectiveness. These evaluations do not however explore the overall impact of their implementation within each of HMYOIs and therefore across YCS. This is perhaps unsurprising given that the wider environment in which such initiatives are delivered is often overlooked (Tonkin & Howells, 2011). Positively however, the evaluation of SECURE STAIRS aims to examine whether its implementation changes the focus to a whole-system approach and develops a culture of creating positive change for all children (Research Projects, n.d.). In recognition of the potential impact the evaluation includes the administration of measures to both staff and children, specifically the Essen Climate Evaluation Schema (EssenCES; Schalast & Tonkin, 2016a). This then raises the question of what is meant by climate within secure settings?

1.2 What Is Climate?

When describing organisations, the terms culture and climate are used interchangeably (Day, Casey, Vess, & Huisy, 2012) and it is therefore important to distinguish between these two concepts. Whilst culture is difficult to define (Spencer-Oatey, 2012) definitions can be found in Anthropology, Biology and Business. Organisational culture, which is of relevance to secure settings, has been defined as "the beliefs, values, ideas, experiences and the processes

[2] Enhanced Support Units provide additional services and support for a small cohort of children for whom their complexity and risk to themselves and others is such that they require additional services and support.

by which they are interpreted" (Bohanna, 1995, as cited in Ireland, 2010, p. 26). Furthermore, the Cultural Web Model (Johnson & Scholes, 1992, as cited in Ireland, 2010) identifies six interlinked elements: stories, symbols, organisational structures, power structures, control systems and rituals and routines that make up or influence the culture of an organisation. Stories about the organisation are those that are discussed both within and outside of the organisations and symbols represent the nature of the organisation and how it defines itself. The organisational structure includes the power structures and the control systems. The power structures are those individuals or groups who most strongly support the aims and values of the organisation and have the most influence on the strategic direction of the organisation. The control systems are the way in which the organisation is controlled such as financial and reward systems. Finally, the rituals and routines are the behaviours of the organisation and those within it. Culture is therefore considered somewhat static due to it being the overall philosophy of both past and present conditions that define an organisation (Ireland, 2010).

Like culture, the concept of climate does not appear to be easily definable (Day, Casey, Vess & Huisy, 2012). The first definition of climate within secure settings described this concept as the personality of the environment (Moos, 1968; Moos & Houts, 1968). This was however criticised by Wright and Boudouris (1982) for not directly defining climate. Wright (1985) subsequently provided a more specific definition; "a set of organisational properties or conditions that are perceived by its members and are assumed to exert a major influence on behaviour" (p. 258). The discussion of how to define climate is ongoing and it remains that there is no agreed definition. Furthermore, what is apparent is the interchangeable and synonymous use of the terms climate and environment. What can be identified are consistent themes as to what makes up climate including recognition that it is multifaceted and what it can influence. Climate has consistently been identified at both an organisational and individual level as being based on perceptions of the conditions of the internal environment, including the physical, psychological and emotional, that interact with each other (Adjukovic, 1990; Day et al., 2012; Lewis, 2016; Moos, 1989; Ros, Van der Helm, Wissink, Stams, & Schaftenaar, 2013; Ross, Diamond, Liebling, & Saylor, 2008; Schalast, Redies, Collins, Stacey & Howells, 2008; Schein, 1993; Taxman, Cropsey, Melnick, & Perdoni, 2008; Tonkin, 2016; Van der Helm, Stams, & van der Laan, 2011; Wright, 1993). As a result it is considered changeable (Day et al., 2012; Lewis, 2016; Lewis, 2017; Wright, 1993) and multidimensional (Tonkin, 2016). Positive characteristics of climate within secure settings have been proposed as including being supportive of therapeutic gain and individual need, feelings of safety from aggression and violence (Schalast et al., 2008; Tonkin, 2016) and influence individual behaviour during and

following custody (Ross et al., 2008; van der Helm, et al., 2011; Wright 1993). Thus, climate is considered a reflection of how things are currently and consequently is easier to assess and change.

Defining the concept of climate has focused upon climate within secure settings accommodating adults. Within England and Wales developmental differences between children and adults, including physical, neurobiological and psychosocial differences, and therefore differing needs, are recognised by the criminal justice system and its stakeholders. Notably, secure settings accommodating children in Holland have been identified as markedly different to those accommodating adults due to the regime, the residential environment and the use of social interaction as a therapeutic tool (van der Helm, Klapwijk, Stams, van der Laan, 2009; van der Helm, Stams, & van der Laan, 2011). Rather than defining climate as a concept, van der Helm and his colleagues have instead defined and distinguished between open and closed climates and what characterises these. Open climates have been characterised as being supportive, respectful, provide opportunities for growth, safe and structured, flexible, and rehabilitative. In contrast, closed climates have been characterised by a lack of support, opportunities for growth, respect and safety, they do not provide meaningful activity and have high repression and haphazard application of rules and sanctions (Eltink, van der Helm, Wissink & Stams, 2015; van der Helm, Beunk, Stams & van der Laan, 2014; van der Helm, Boekee, Stams & van der Laan, 2011; van der Helm, Klapwijk, et al., 2009; van der Helm, Stams & van der Laan, 2011; van der Helm, Stams, van der Stel, van Langen & van der Laan, 2012). As such there appears a need to explore and understand whether existing definitions of climate are relevant to secure settings accommodating children. Furthermore, given the apparent difference between open and closed climates what impact does climate have on those residing within it?

1.3 What Impact Does Climate Have?

Climate is recognised as influencing individual's behaviour both within secure settings and upon leaving (van der Helm, Stams & van der Laan, 2011). Mischel (2004) provided a critique of the study of human personality and argued that the characteristics of the environment in which someone resides has as much, if not more, influence on an individual's behaviour than their individual characteristics. Consequently, this raises the question what impact does climate within secure settings have on the behaviour of children residing within them?

1.3.1. Institutional Violence

Of concern are the current levels of violence amongst children within custody (Youth Justice Board & MOJ, 2020). Institutional violence is defined as "actual, attempted or threatened harm towards another individual within an institutional setting" (Cooke & Johnstone, 2010, p.155). Institutional violence is highlighted as having several economic costs including physical and psychological injury, disability, illness, absenteeism, counselling, sick pay, loss of experienced staff, a high turnover of staff, destruction of property, disruption to regimes, prolonged incarceration and several distal effects including damage to an organisations image that may result in difficulties in recruitment, a lack of public confidence, decrease in morale and motivation, decrease in loyalty and increased costs to the taxpayer (Cooke, Wozniak & Johnstone, 2008; Gadon, Johnstone & Cooke, 2006; Johnstone & Cooke, 2010). Several theories seek to explain the use of violent behaviour within secure settings and recognise the role of both internal and contextual factors including climate. The two models dominating research are the Deprivation Model and the Importation Model (Blevins, Listwan, Cullen & Jonson, 2010).

The Deprivation Model (Sykes, 1958) proposed that the climate of secure settings explains negative behaviour including violence (Hochstetler & DeLisi, 2005). Specifically, those that reside within secure settings experience deprivation of their liberty, autonomy, goods/services, heterosexual relationships and security and this destroys the 'psyche'. To avoid this an individual may be motivated to engage in negative behaviours to alleviate their pains (Stohr & Walsh, 2011). Whilst research has offered support for this model (Lahm, 2008) it has also been criticised for ignoring individual characteristics (Gover, Perez, & Jennings, 2008) and not explaining differences in individual's behaviour despite similarities in sentence and environment (Dhami, Ayton, & Loewenstein, 2007). In contrast, the Importation Model (Irwin & Cressey, 1962) proposed that individuals bring personal factors, such as coping strategies, personality styles and prior experiences, into a secure setting that shapes their behaviour. Similar to the Deprivation Model research has offered support for this model (Lahm, 2008) and it has been proposed as an explanation for the presence of gangs and gang culture within secure settings, specifically prisons (DeLisi, Berg, & Hochstetler, 2004; Pyrooz, Decker & Fleisher, 2011). The model however has also been criticised for failing to identify how best to manage those who commit violence within custody and how to reduce prison violence (McCorkle, Miethe, & Drass, 1995).

In contrast, Lahm (2008) highlighted the importance of both internal and contextual factors and proposed an integrated model combing both the Deprivation and Importation models. In response to this Blevins, Listwan, Cullen and Jonson (2010) proposed that the General Strain Theory (GST; Agnew, 2009) provided an integrated model and thus a complete model of prison behaviour. Strain can be divided into three types; the failure to achieve positively valued goals; the removal of positively valued stimuli and the presence of negative stimuli (Peters & Corrado, 2013). GST, like the Deprivation model, identifies sources of 'strain' and, like the Importation model, recognises how individual factors influence responses to such strain. In addition, Blevins et al. (2010) also incorporated what they labelled the Coping model. The Coping Model and the GST recognise the impact of a lack of coping resources and skills on an individual's behaviour and adjustment to secure settings. Subsequent findings concurred that prison strain is associated with both children and adult adjustment to and negative behaviour within secure settings (Morris, Carriaga, Diamond, Piquero & Piquero, 2012; Peters & Corrado, 2013). An integrated model, such as the GST, that recognises the interaction between external factors such as climate and individual characteristics, which influence behaviour and adjustment, appears to be the most robust in explaining the effect of climate on the behaviour of those within secure settings.

Violence should not be assumed to be inevitable (Gadon, Johnstone & Cooke, 2006) however it has been suggested that the longer a child remains in a secure setting increases the likelihood of aggressive incidents (van der Tillaart, Eltink, Stams, van der Helm & Wissink, 2018). Within secure settings accommodating children findings regarding the impact of climate characterised by repression on levels of aggression are mixed. Whilst research conducted in the Netherlands found repressive climates to have little effect on levels of aggression (Eltink, Hoeve, de Jongh, van der Helm, Wissink & Stams, 2018; van der Helm, Boekee, Stams & van der Laan, 2011; van der Helm, Stams, van Genabeek & van der Laan, 2012), it has been proposed that this is due to levels of repression experienced both prior to custody and within custody being similar. As such, levels of aggression are unlikely to increase. In contrast research in Germany found a repressive climate to be associated with higher levels of reactive aggression and so supportive of the Deprivation model. It was proposed that the contrast in findings was because of the difference in the two countries prison systems (Heynen, van der Helm, Cima, Stams & Korebrits, 2017). However there is also a difference in the age group accommodated within what are considered children's secure settings. In Germany, young adults up to the age of 25 can be detained within 'youth prisons' which was reflected in Heynen et al's. (2017) study. Consequently it would appear that further exploration of both the

impact of repression on children's levels of aggression and what differences exist between children's and young adults' perceptions of repression and levels of aggression would be beneficial.

Positive climates have consistently been found to have positive effects on the number and severity of aggressive incidents (De Decker et al., 2018). Whilst de Decker et al. (2018) could not conclude a causal relation; studies have found an open climate to be associated with less aversive reactions, including aggression and violence, to a range of social problem situations. Furthermore, an open climate has been found to buffer against aggression through its positive effects on low neuroticism (van der Helm, Stams, van Genabeek & van der Laan, 2012).

Miller and Eisenberg (1988) proposed aggressive or violent behaviour may be a result of a lack of empathy due to a failure to appreciate the feelings of others. Empathy is defined as "the ability to understand and share in another's emotional state or context" (Cohen & Strayer, 1966, p. 988, as cited in Jolliffe & Farrington, 2004). Jolliffe and Farrington (2004) praised this definition for encompassing both cognitive empathy; the ability to understand another's emotional state and affective empathy; the ability to experience another's emotions. Van der Helm, Stams, van der Stel, van Langen & van der Laan (2012) conducted the first study to explore the impact of group climate on empathy. Preliminary evidence was found to suggest that a positive climate was positively associated with cognitive empathy and a negative climate was negatively associated with cognitive empathy. The development of positive climates within and across the YCS may aid in developing the cognitive empathy of children that in turn may contribute to a reduction in violence.

1.3.2 Reducing Reoffending

In addition to concerns regarding levels of violence within YCS are concerns regarding the reoffending rates of children (Youth Justice Board & Ministry of Justice, 2020). Whilst the World Health Organisation (WHO; 1953) stated that climate is the "single most important factor in the efficacy of treatment" (p.17) within secure settings, more recent opinions appeared to have been moderated given the lack of conclusive evidence. Harding (2014) stated "a good social climate would seem likely, other things being equal, to improve the outcomes achievable through proven rehabilitation programmes" (p.171). Despite this, it is apparent that climate influences treatment efficacy and, as such, is recognised within both theories of motivation and in psychological principles that guide the treatment of those who have committed offences.

To be motivated is defined as "to be moved to do something" (Ryan & Deci, 2000a, p.54). The Self-Determination Theory (SDT; Ryan & Deci, 2000b) recognised motivation to be more than unitary and biologically driven and distinguished between Intrinsic motivation; doing something due to personal interest or enjoyment, and Extrinsic motivation; doing something for the outcome. Furthermore, SDT recognised the role an individual's environment can have on motivation and personal development. As such an environment that supports an individual's needs of competence, autonomy, and relatedness results in the maintenance of intrinsic motivation and developing self-determination with regards to extrinsic motivation (Ryan & Deci, 2000a; Ryan & Deci, 2000b). Motivation has been identified as strongly associated with programme completion and attrition (Debidin & Lovbakke, 2005) and the factor upon which treatment completers and non-completers have been found to differ (Wormith & Oliver, 2002). Given that intervention completion is also associated with reduction in risk (e.g. Sadlier, 2010) whereas the non-completion of interventions is associated with an increase in risk (Cann, Falshaw, Nugent & Friendship, 2003; McMurran & Theodosi, 2007) the need to consider and address motivation is clear. The debate remains however, as to whether motivation should be a selection criterion or regarded as a treatment need (McMurran, 2002).

The development of accredited[3] interventions is based on the theoretical underpinning that offending behaviour can be predicted based on known associated risk factors, the treatment of which would reduce risk of reoffending. Following the publication of the 'What Works' literature (McGuire, 1995), the Risk-Need-Responsivity (RNR) model was developed (Andrews & Bonta, 2003). Specifically of relevance to forensic settings, the model is "based on the concept that early criminal behaviour can be predicted, that risk interacts with levels of treatment intensity and targets in influencing treatment outcomes and that these factors interact with individual factors in influencing outcome" (Craig, Dixon & Gannon, 2013, p. 6). Whilst the RNR model provides a methodology of risk and classification of individuals for treatment, Ward, Day, Howells and Birgden (2004) criticised the core principle of Responsivity for not recognising the dynamic interaction between an individual, treatment and contextual factors. They instead proposed the Multifactor Offender Readiness Model (MORM; Ward, Day, Howells & Birgden, 2004). Readiness is defined as "the presence of characteristics within either the client or therapeutic situation that are likely to promote engagement in therapy and that,

[3] "The term accreditation in the criminal justice system describes the process of reviewing, validating and approving interventions which have been designed to reduce reoffending" (Ministry of Justice, 2014, pp. 1).

thereby, are likely to enhance therapeutic change" (Howells & Day, as cited in Ward et al., 2004, p. 647) The MORM incorporates the constructs of motivation and responsivity by highlighting the importance of meeting individual needs to aid in increasing the effectiveness of treatment and, similar to SDT (Ryan & Deci, 2000a; Ryan & Deci, 2000b) that treatment readiness is due to internal and external factors. Internal factors include cognitive, affective, goals, skills and personal and social identity whereas external factors include circumstances, location, opportunity/availability of treatment, resources associated with the intervention, interpersonal support and intervention characteristics. It is the combination of these factors that increase the likelihood of an individual engaging with an intervention. Of interest are external factors, specifically opportunity and support factors. Opportunity factors are identified as the availability of treatment within a secure setting and include climate that Ward et al. (2004) highlighted as influencing both individuals' behaviour and the sustainability and generalisability of treatment gains. Furthermore, individuals' experience of climate will also affect treatment readiness. Support factors, as the title suggests, focus upon the degree of support available to an individual. Whilst family and friends are sources of support, staff, including clinicians, also have a critical role in providing this. (Ward et al., 2004).

Whilst Ward et al. (2004) proposed that modification of the individual treatment and/or setting increases an individual's readiness to engage in treatment, Marshall and Burton (2010) highlighted that more research was required with children to understand the effects of climate on group treatment. Subsequent research has consistently found positive climates to be positively associated with treatment motivation (van der Helm, Klapwijk, Stams, & Laan, 2011; van der Helm, Beunk, Stams & van Der Laan, 2014; van der Helm, Wissink, De Johng & Stams, 2012). Furthermore, in line with SDT (Ryan & Deci, 2000a; Ryan & Deci, 2000b), the experience of a positive climate within the first month of placement within a secure setting has been found to predict a greater motivation for treatment three months later (van der Helm, Kuiper & Stams, 2018). Suggestions of how to modify the setting have included moving an individual to a different setting to engage with the required intervention or changing the climate in the current setting (Ward et al., 2004). Decisions regarding the placement of children within the YCS are based upon their individual risks and needs (HMPPS & YCS, 2017). The YCS is a small directorate and there is a consistent model of interventions provided across the public sector YOIs. As such moving children to different establishments is disruptive and unnecessary. Consequently the suggestion of changing the climate appears the most logical. To do so however requires an understanding of the existing climate and what would benefit from

being changed or remaining the same. As such the approach to understanding existing climate within secure settings accommodating children and how it can be measured is essential.

1.4 How Is Climate Measured?

There are two approaches to measuring climate; the objective (or organisational or structural) and the subjective (or psychological or process). The objective approach uses information taken from organisational records (Saylor, 1984). The objective approach to evaluating prison performance has previously utilised Key Performance Indicators (KPI's) and Key Performance Targets (KPT's) and more recently Performance Measures. These include, for example, the number of assaults and hours spent in purposeful activity. Each prison's performance, including HMYOIs, is monitored and measured using the Prison Performance Tool (PPT). The PPT uses a data-driven assessment of performance in each prison to obtain overall prison performance ratings that are published annually (MOJ, 2019). Criticism and questions regarding the accuracy of utilising performance measures have been raised. These include the ability to identify appropriate KPI's for a complex organisation such as HMPPS, how the most appropriate way to measure performance in light of several options being identified, targets may be quantifiable as opposed to measure what matters and the possibility establishments may achieve their targets despite not treating service users decently and/or humanely. Furthermore, there is the possibility of overlooking key achievements, the potential to negatively impact on staff morale, the lack of accuracy in reflecting the needs of service users and finally the difference between targets and what staff and service users believe are important. Climate has consistently been identified as being based upon perceptions of the physical, psychological and emotional conditions of the internal environment. An objective approach does not measure the perceptions of those working and residing within a setting. In response to these criticisms it was recommended that information about service users experience should also utilised (Solomon, 2004) thereby promoting the use of subjective approaches to evaluate secure settings.

The subjective approach involves the collection of responses from individual members of the organisation which are then aggregated to yield measures of the organisation (Saylor, 1984). Evaluations of climate can be conducted on various levels, ranging from evaluation of a whole service such as all YCS managed accommodation through to individual establishments or a specific area within an establishment such as a residential unit (Tonkin & Howells, 2011). Whilst there is a limited amount of literature assessing the reliability and validity of service user survey responses (Daggett & Camp, 2010), the available evidence indicates that service

user perceptions highlight the same issues as official data (Daggett & Camp, 2010) and are more reliable than staff (Camp, Gaes, Klein-Saffran, Daggett & Saylor, 2002). The reliability, immediacy and accessibility of such feedback is advantageous as using such methods may aid in the continual assessment of the environment and the timely implementation of appropriate management strategies (Daggett & Camp, 2010) but raises the question as to how perceptions of climate are measured?

1.4.1 Measures of Climate

The development of measures of climate began in the United States and subsequently spanned the globe (Tonkin, 2016). As a result, there are now several popular measures of climate used in a variety of secure settings. Rudolf Moos has been credited as the pioneer of this work and developed the first measure of climate, the Ward Atmosphere Scale (WAS; Moos, 1974), through observation, staff and patient interviews and literature. The WAS was originally developed for use in psychiatric settings and subsequently adapted for use in community, educational, military and forensic settings (Tonkin & Howells, 2011). This resulted in the development of the Correctional Institutions Environment Scale (CIES; Moos, 1987). The CIES, a 90-item measure made up of three dimensions and nine subscales, developed to measure staff and prisoner perceptions of the prison environment. Moos assumed that dimensions would be the same for both psychiatric wards and correctional institutions (Ross, Diamond, Liebling & Saylor, 2008). As such the CIES measures three dimensions, Relationship, Personal Growth and System Maintenance made up of 10 scales; Involvement, Support Expressiveness/Spontaneity, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, Order and Organization, Clarity and Staff Control. Although a popular and relatively easy measure to administer (Wright & Boudouris, 1982) there have been several criticisms of the CIES. These include its lack of reliability and validity, lack of adequate theory base, its lack of justification for the characteristics of the prison climate, whether the characteristics exist, whether those characteristics have meaning for behaviour within prison and finally its use within settings accommodating adults despite its development with children (Ross et al., 2008; Tonkin & Howells, 2011; Wright & Boudouris, 1982; Wright, 1985). More recently researchers and practitioners were cautioned when considering using the WAS to measure climate within secure settings and consider the use of alternative measures (Tonkin, 2016).

In response to the criticisms of the WAS, Saylor developed the Prison Social Climate Survey (PSCS). The PSCS, a 189-item measure of both staff and prisoner's perceptions (Ross et al., 2008), address' a broad range of aspects, issues and experience of the prison environment.

For service users these include Quality of Life, Personal Wellbeing, Staff Services and Programmes Utilised, Personal Safety and Security. For staff these include Personal Safety and Security, Quality of Life, Personal Well-Being, Work Environment, Community Environment and Housing Preferences (Saylor, 1984). There were no presumptions regarding the application of the measure or how the individual items on the measure may be used, this is left to the discretion of the administrator. Furthermore, the sections were designed to be administered either independently of each other or using any combination of subsets. Despite this, subsequent research appears to have focused on the items used to measure the staff work environment that were concluded to show an acceptable level of reliability and validity (Saylor, Gilman, & Camp, 1996). As a result, the PSCS has been used to explore staff's perceptions of the prison environment including gender differences in perceptions of prison work (Wright & Saylor, 1991) and minority and non-minority employee perceptions of the prison work environment (Wright & Saylor, 1992). Criticisms of the PSCS include limited empirical support for its psychometric properties and participants are provided with limited choices and therefore their perceptions are restricted to the options provided (Ross et al., 2008; Tonkin, 2016).

Based on the research of Hans Toch's (1977, as cited in Tonkin & Howells, 2011), which asked respondents about their perceptions of difficulties they encountered in prison and how they managed them, Wright developed the Prison Environment Inventory (PEI). The PEI, an 80-item long version and a 48-item short version measure, consists of eight aspects of prison climate that Wright identified as common concerns to those in prison. Whilst initial exploration of the PEI's factor structure concluded that the PEI was an effective measure of the prison environment (Wright, 1985) subsequent research has been conflicting (Bradford, 2006) and as such recommendations regarding the PEI's utility have also been conflicting.

Whilst the measures discussed above have all originated in the US, the development of measures of climate with secure settings has also taken place in Europe including the UK. In 2002 the UK's Prison Service's Standards Audit Unit introduced Measuring of Quality of Prison Life (MQPL; Liebling & Arnold, 2002, 2004). The MQPL aims to measure aspects of prison performance beyond Key Performance Targets (KPT's), audits and Her Majesty's Inspectorate of Prisons (HMIP), specifically service users' perceptions of prison life and its effects (House of Commons Affairs Committee, 2004). The MQPL employs several tools including; service user surveys, focus groups, observations and interviews (Schmidt, 2014) following which a report is produced using both qualitative and quantitative data. The service user survey uses a 128-item questionnaire format based on the findings of empirical research. Its underlying

conceptual framework incorporates notions of legitimacy, right relationships, value balance, professionalism and use of authority (Liebling, 2014). Although adopted across HMPPS including YCS, the MQPL survey is highlighted to have limitations. These include its length, focusing upon scores rather than specific details of the report, the results can be complex and difficult to interpret without a good working knowledge of the prison environment, it does not address some of the important dimensions of prisoner experiences and it is not integrated with measurement or analysis of attending offending behaviour programmes (Liebling, 2014). Furthermore, it cannot be used with both service users and staff thereby limiting its applicability and finally, despite its wide use, it has not been validated with a wide range of populations, including children, which further limits its practical value (Tonkin, 2016).

The newest measure of climate is the Essen Climate Evaluation Schema (EssenCES; Schalast & Tonkin, 2016a). Developed in response to the criticisms of the Ward Atmosphere Scale (Moos, 1974) and validated within mental health settings (Schalast, Redies, Collins, Stacey, Howells, 2008) the EssenCES was designed to measure three features of a social climate; Therapeutic Hold, Patient's Cohesion and Mutual Support and Experienced Safety (vs. threat of aggression and violence). Therapeutic Hold refers to the extent to which climate can effectively support the therapeutic needs of a patient, Patient's Cohesion and Mutual Support refers to the extent to which therapeutic community is reached on the ward and Experienced Safety, based on Maslow's (1943) premise of Safety being a basic need, refers to the level of safety and individual experiences on a ward. Whilst reportedly the measures structure design was not based on a sophisticated theoretical background the three dimensions are argued to have both face (Schalast, 2016) and empirical validity, specifically within German and English psychiatric settings (Tonkin & Howells, 2016). The EssenCES was subsequently adapted for use within custodial settings and included variations on the wording of the subscales. The scale titled Therapeutic Hold was changed to Hold and Support and the scale titled Patient Cohesion was amended to Inmates Social Cohesion. The wording of individual items was amended to reflect the language used within the custodial setting by service users and staff (Schalast & Laan, 2017). The EssenCES was validated for use in custodial settings (Day, Casey, Vess & Huisy, 2012; Schalast & Laan, 2017; Tonkin et al., 2012) yet despite this, limitations regarding its validation have been identified. Specifically, exploration of its use in low security units is lacking as is research with children, women and those with learning disabilities residing in secure settings. As such it was highlighted that caution should be taken when applying the EssenCES to these populations (Tonkin, 2016). Glennon and Sher (2018) sought to address these limitations through piloting the EssenCES, to explore its usefulness and provide

preliminary normative data, with a neurodevelopmental Community Adolescent Mental Health Service (CAMHS) inpatient population. Although the use of a statistical analysis was not undertaken, the means of two types of secure environments were compared and provided some initial normative data for such settings. Glennon and Sher (2018) highlighted that the EssenCES was not designed for use with children and recommended further research on the use of the EssenCES with this population to ascertain its usefulness and applicability.

Given the limitations and recommendations regarding the use of the EssenCES within secure settings accommodating children, it is interesting that this measure has been selected within current evaluation models of the new initiatives being developed within YCS. Whilst currently the empirical literature has explored and identified the benefits of positive climates within secure settings accommodating children there appears to be few, if any, measures of climate developed specifically for use with this population. Instead, research has focused upon measures developed for use within secure settings accommodating adults. Given the significance of development during childhood and adolescence, in particular psychosocial development (Erikson, 1963, 1982, as cited in Shaffer, 2002) and the differences between the secure settings in which children and adults are accommodated, it is hypothesised that these differences may result in children perceiving different factors as influencing climate. This could be due to the presence or lack of key social agents they have in their lives during childhood and adolescence compared with adulthood. Staff working with children in secure settings may become a key social agent by providing the role of parent, primary caregiver and/or teacher. It is unlikely that staff working with adults will assume the role of a key social agent. Alternatively, whilst children may identify factors similar to those identified by adults as influencing climate, there may be differences in what influence those factors have. Therefore it is essential that up to date research is completed to understand the psychometric properties of existing measures of climate used within secure settings accommodating children and the relevance of their conceptual frameworks to this population to ensure that appropriate evaluation is undertaken that in turn could inform commissioning of services (Tonkin, 2016).

1.5 Introduction to Thesis

This thesis aims to explore the concept of climate within secure settings accommodating children and increase understanding of this to guide practice and policy whilst fulfilling the requirements of a professional doctorate.

This thesis comprises of four chapters, which include a Systematic Review and a qualitative research study, all with a focus on climate within secure settings accommodating children. The thesis begins with this chapter to introduce what is currently known about climate within secure settings accommodating children. The literature review starts by introducing the key neurological and psychosocial developments during childhood and adolescence, exploring the number of children within custody both internationally and in England and Wales specifically, the statistics regarding levels of violence and reoffending within the youth secure estate and the organisational response to these. It then explores definitions of climate, the impact of climate within secure settings accommodating children and how climate can be measured.

Chapter Two presents a systematic review of the existing research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. Specific objectives were to explore what measures have been used to evaluate perceptions of climate, examine how climate within secure settings has been defined by such measures, and evaluate the evidence regarding the psychometric properties of those measures.

Chapter Three explores the factors influencing climate within secure settings accommodating children, specifically Her Majesty's Young Offenders Institutions (HMYOIs), using the perspectives of children. The fourth and final chapter brings together the findings from the previous chapters.

The aims of this thesis are to:

- To systematically investigate what is currently known within the literature about the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. This aims to identify any gaps to aid the direction of this thesis.
- To explore what factors influence climate within secure settings, specifically public sector HMYOIs, utilising the perspectives of children residing there.
- To explore whether children conceptualise climate in a manner that differs from adults.

Chapter 2

What are the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children? A structured review and analysis.

2.1 Abstract

Introduction: Developmental differences between children and adults are recognised and reflected in both literature and organisational approach. It cannot, therefore, be assumed that measures of climate developed for use within secure settings accommodating adults are also appropriate for use within secure settings accommodating children. Furthermore, without robust and appropriate measures, we cannot be sure that the concept of climate is being assessed adequately. This has significant implications for the conclusions that might be made about these environments.

Aim: The aim was to synthesise the research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. Specific objectives were to explore what measures have been used, examine how climate within secure settings has been defined by such measures, and evaluate the evidence regarding the psychometric properties of those measures.

Method: A scoping strategy was employed to assess the need for the review and inform the development of the research question and search strategy. The search strategy was conducted across three electronic databases. Hand searches and targeted searches on specific authors were also undertaken. The psychometric properties of the identified measures were evaluated against the COSMIN taxonomy of measurement properties. Furthermore, quality assessment and overall quality of psychometric properties were evaluated (Cordier et al., 2017; Terwee et al., 2007)

Results: Twenty-one studies including seven measures met the inclusion criteria and were selected for the review. A narrative synthesis was applied and, for each measure, the development and psychometric evidence was discussed and evaluated.

Discussion: Definitions of climate were limited and lacked consistency. This may be a result of the concept of climate not being easily definable. However, without understanding how climate is defined we cannot be sure that measures are valid. Evidence of varying degrees of the psychometric properties of measures of climate were identified. Following assessment of the methodological quality and the quality of the psychometric properties, it was concluded that there was no substantive support for any of the seven measures. Measures of climate used within secure settings accommodating children are not well validated and caution should

be exercised regarding decisions to use any of the identified measures to evaluate new and/or existing services.

2.2 Introduction

Moos and Houts (1968) first defined climate within secure settings as the personality of the environment. Wright (1985) subsequently provided a more specific definition; "a set of organisational properties or conditions that are perceived by its members and are assumed to exert a major influence on behaviour" (p. 258). Similarly, Mischel (2004) emphasised characteristics of the environment in which someone resides have as much, if not more, influence on an individual's behaviour than their individual characteristics. It is therefore important and necessary to identify and understand how the concept of climate can be measured and the appropriateness of such measures.

Tonkin (2016) previously undertook a review to identify what measures of climate for use within prison and forensic psychiatric hospitals exist and the evidence available regarding the psychometric properties of such measures. Whilst 12 measures were identified, the review was not without limitations. Firstly, the review did not consider the methodological quality of the included studies. As a result, the design conduct and analysis of each study was not considered. Secondly, the review did not distinguish between measures developed for use within settings accommodating different populations such as children. This is despite the recognition of developmental differences between children and adults by organisations within England and Wales, including the criminal justice system and health services, which in response provide discrete, specific services. Tonkin's (2016) review did however inadvertently highlight that very few measures of climate appear to have been developed for use within secure settings accommodating children. Instead, measures appear predominantly to have been developed for assessing perceptions of climate within secure settings accommodating adult males and then generalised to measure perceptions of different populations including children. As scale validation is sample specific, the reliability and validity of a measure cannot be generalised to all potential participant groups. The psychometric properties of existing measures should, therefore, be examined and understood and, if necessary, amendments should be made to ensure their appropriateness for use with psychologically differing groups (Furr, 2011). It cannot be assumed it is appropriate to use generic measures of climate or measures developed for use with adult males to measure the perceptions of children. As such a thorough exploration and evaluation of existing climate measures used within secure

settings accommodating children is necessary before any conclusions or recommendations can be made as to their appropriateness for use.

2.2.1 Evaluation of Measures

The process of measure development is not unique and literature pertaining to this spans a range of disciplines. Central to the understanding of results derived from measures are the issues of reliability and, whilst difficult to establish, validity. Reliability indicates how free from random-test error a measure is and its ability to produce consistent results when the same concepts are measured under the same and different conditions (Hinkin, 1998; Pallant, 2007). Indicators of reliability are Internal Consistency and Reproducibility/Test-Retest. Internal Consistency is the extent to which items in a measure's scales/subscales are correlated. Whilst internal consistency is important for unidimensional measures, for those that are multidimensional it is less important as the items do not need to be correlated (Terwee et al., 2007). Reproducibility/Test-Retest is the degree to which repeated use of a measure provides similar answers (Pallant, 2007; Terwee et al., 2007).

Validity is evidence that a measure evaluates the concept it was designed to (Field, 2013). The most common types of validity are Content and Construct. Content validity is the extent to which items within a measure fairly represent the entire concept proposed to be measured. Construct validity is whether the scores within a measure assess the intended construct (Salkind, 2010). Convergent and Discriminant validity are considered subtypes of construct validity and both are required to establish validity (Trochim, 2006). Convergent validity is the degree to which two measures of constructs that theoretically should be related are observed to be, whereas when constructs that are theoretically unrelated are observed not to be is discriminant validity (Trochim, 2006). In addition to the more common types of validity, Responsiveness has been considered "a measure of long-term validity" (Terwee et al., 2007, p. 37). This should be "assessed by testing predefined hypotheses" (Terwee et al., 2007, p. 37) thereby demonstrating a measures ability to detect change that should have occurred.

Whilst the validity of a measure is necessary it is not enough alone; to be valid a measure must first be reliable (Field, 2013). Reliability and validity are considered "the fundamental facets" (Furr, 2011, p. 6) of the quality of a measure that underpin the various stages of measure development from initial item generation through to psychometric analysis (Rattray & Jones, 2005). Thus, evidence regarding a measure's reliability and validity should be available. Without such evidence, it cannot be assumed that a measure has been used and

interpreted appropriately. Despite this, criteria for what constitutes a good measure have previously been lacking and in response explicit criteria for the design, methods and outcomes have been defined (Terwee et al., 2007). This definition aids in ensuring the appropriateness of a measure for use in both research and practice (Fitzpatrick, Davey, Buxton & Jones, 1998; Hinkin, 1998; Terwee et al., 2007).

It is crucial that robust and appropriate measures of climate are utilised given the time and financial implications associated with the administration, analysis and interpretations of such measures within secure settings. Furthermore, the outcomes can inform guide clinical practice and evaluate service delivery that in turn may inform commissioning of services (Tonkin, 2016). If the psychometric properties of questionnaires are not understood, we cannot be sure that the concept of climate is being assessed adequately and the implications of this are far reaching.

2.2.2 Current Systematic Review

Developmental differences between children and adults are recognised and reflected in literature and organisational approach. The Youth Custody Service (YCS), a separate directorate within Her Majesty's Prison and Probation Service (HMPPS), is responsible for the oversight, contract management and delivery of the provision of secure settings accommodating children within the UK and Wales (HMPPS, 2018b). Furthermore, the development and validation of measures is sample specific, and it cannot be assumed that a scale validated with one population is appropriate for another. As such it cannot be assumed that a measure of climate developed for use within secure settings accommodating adults is also appropriate for use within secure settings accommodating children. Therefore, there was a need to develop a greater understanding of what measures have been used to evaluate climate specifically within secure settings accommodating children and to thoroughly explore the psychometric properties of such measures. Without robust and appropriate measures, we cannot be sure that the concept of climate is being assessed adequately within such settings. This in turn has significant implications for the conclusions that might be made about these environments. The synthesis of the available literature would provide a source of information regarding measures of climate and their psychometric properties. Furthermore, it would also contribute to the direction of future research, specifically the creation of new and/or development of existing measures to measure children's perception of climate within secure settings.

2.2.3 Aims and Objectives

The overarching aim of the current review was to synthesise the research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. Specific objectives of this systematic review were as follows:

- Explore what measures have been used to evaluate perceptions of climate within secure settings accommodating children.
- Examine how climate within secure settings accommodating children has been defined within such measures
- Evaluate the evidence regarding the psychometric properties, including Validity, Reliability, Internal Consistency, Factor Structure and Responsiveness of those measures.

2.3 Method

2.3.1 Protocol

The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA; Liberati et al, 2009; Moher, Liberati, Tetzlaff & Altman, 2009) guidelines were followed. The registration of a review protocol aims to minimise the risk of bias within the review and help avoid unplanned duplication. Attempts to prospectively register the review protocol in PROSPERO were made however it was concluded to be inappropriate due to there being no health outcome.

2.3.2 Search Strategy

Initially the Cochrane library was searched to identify if a previous review had been completed on this topic. As it had not initial scoping searches of several databases were conducted between April and August 2018 to establish the relevant databases, to refine key search terms devised from the aims of the review, existing literature review and associated reference lists and aid consideration of complementary searching activities.

Following an extensive period of adapting and modifying the search terms three databases, Psycinfo, Psychtests and Applied Social Sciences Index and Abstracts (ASSIA), were searched from their start date until 28th August 2018. The search terms combined terms for the following concepts: adolescents, secure settings, climate and measures (see Appendix 1 for search strategy terms). All databases were searched using the Boolean operators AND and OR. The NOT operator was not used due to the danger of inadvertently excluding potentially relevant studies (Lefebvre, Manheimer & Glanville, 2008). The same search strategy was used for each of the databases.

Additional targeted searches were conducted by hand-searching citations and reference lists of other systematic reviews and articles. Targeted searches on specific authors were conducted separately.

2.3.3 Inclusion and Exclusion Criteria

From the aims of the current review it was identified that the data selected would be quantitative in design. As the predominantly used PICO (Population, Intervention, Comparator and Outcome) model is used for systematic reviews of effectiveness (Cherry & Dickson, 2017),

which this review is not, a table of key parameters and variables of interest was instead generated and presented in Table 1 and Table 2.

Table 1

Inclusion criteria

Inclusion Criteria
Participants must be children; aged 10 to 18 or the mean age of participants must be between 10 and 18.
Be concerned with climate in secure settings.
Use of a questionnaire to measure climate, specifically perceptions of climate.
Must report statistical evidence of Internal Consistency (for example Cronbach Alpha), Factor Structure (for example Principal Component Analysis, Exploratory Factor Analysis, Confirmatory Factor Analysis or Interscale Correlations), Reliability (for example test-retest), Construct Validity (for example Convergent or Discriminant validity) or Responsiveness as defined by Terwee et al. (2007).
Published in English.
Full text available.

Table 2

Exclusion criteria

Exclusion Criteria
Participants aged over 18 or the mean of age participants is over 18.
School settings.

2.3.4 Selection of Articles

Using the identified search terms (see Appendix 1) records were retrieved from the database search. The results for each search were exported into Refworks for storage. Using the Refworks programme duplications of papers within the results were removed. The title and abstracts of the remaining papers were initially screened for relevance, specifically so that those that did not meet inclusion criteria could be excluded. Studies that appeared to meet the inclusion criteria or it was unclear as to whether a study could be excluded with confidence were then reviewed again using full copies of the paper. Of the remaining papers, full copies of the papers were retrieved via the elibrary of Nottingham Trent University, the British Library and Google search engine. A full-text review to establish whether the paper met the inclusion criteria was undertaken by the researcher. Queries regarding eligibility were discussed with the lead supervisor. Studies that did not provide an age range or mean of the participants but

used the word adolescent[4] or juvenile[5] were included in this review due to the definitions of these groups.

2.3.5 Additional Searches

Hand searches of reference lists and a free hand search were employed to identify papers that met the screening and selection inclusion and exclusion criteria. Although these papers were not found via the systematic process it is the researchers' opinion that it was appropriate to include them to create an accurate view of the literature currently available with regards to the review question.

2.3.6 Data Extraction

The data extraction of potentially eligible literature was performed independently by the researcher. The following data was extracted: author, year of publication, country, the title of the study, population and sample size (n), the title of measure, measure scales and number of items, definitions of climate and types of psychometric properties tested.

2.3.7 Quality Assessment Method

Quality, when used to describe a study included within a systematic review, is defined as "the degree to which a study employs measures to minimize bias and error in its design, conduct and analysis (Khan, Kunz, Kleijnen & Antes, 2003, p. 39, as cited in Greenhalgh & Brown, 2011). The COnsensus-based Standards for the Selection of health Measurement INstruments (COSMIN) methodology for systematic reviews of patient-reported outcome measures (Mokkink et al., 2018) and the COSMIN Risk of Bias Checklist (Terwee et al., 2018) were used to evaluate the methodological quality of the included studies. The purpose of assessing the methodological quality is to screen for risk of bias in the included studies and therefore the reliability of the reported results. COSMIN was developed to provide a consensus-based checklist for evaluating the methodological quality of studies reporting on psychometric properties (Mokkink et al., 2010). Whilst measures of climate are not considered patient-reported outcome measures, given the aims of this review, it was identified that this was an appropriate quality assessment method.

The COSMIN checklist contains nine measurement properties including Content Validity (Box Two), Structural Validity (Box Three), Internal Consistent (Box Four), Cross Cultural

[4] "used to describe young people who are no longer children but who have not yet become adults". (Adolescent, n.d.).
[5] "a child or young person who is not yet old enough to be regarded as an adult". (Juvenile, n.d.)

Validity/Measurement Invariance (Box Five), Reliability (Box Six), Measurement Error (Box Seven), Criterion Validity (Box Eight), Hypotheses Testing for Construct Validity (Box Nine) and Responsiveness (Box 10). A definition of each psychometric property, as guided by COSMIN, is provided in Appendix 2. Content validity was not evaluated due to the methodology being based upon patient-reported outcome measures and therefore not appropriate. Criterion validity was not evaluated due to the absence of a 'gold standard' measure of climate. Cross-cultural validity was not evaluated as the instruments reviewed were developed and published in English, and interpretability is not considered to be a psychometric property under the COSMIN framework and was therefore not described in this review. The measurement properties evaluated in a study determine which boxes should be completed. Each of the nine measurement properties has a range of standards that are rated using a four-point rating system. Each standard can be rated as 'Very Good', 'Adequate', 'Doubtful' or 'Inadequate'. The response option 'NA' for some standards is available. The overall rating of the quality of the study is based on the lowest rating of any standard, i.e. worst score counts (Mokkink et al., 2018).

2.3.8 Quality Assessment of Psychometric Properties

Following the assessment of the methodological quality, the quality of the psychometric properties was rated. The results of each study were evaluated using criteria set out by Cordier et al. (2017) and Terwee et al. (2007) and Appendix 3 provides a summary of these criteria.

2.3.9 Overall Quality of Psychometric Properties

Finally, each measurement property for all instruments was given an overall quality score using criteria set out by Schellingerhout et al. (2012). These criteria combine the scores of study quality with the psychometric quality ratings thereby creating an overall quality rating. A description of this process is provided in Appendix 4.

2.4 Results

This systematic review identified 10714 records of which 1426 duplications of papers within the results were removed. Screening of the title and abstracts of the remaining 9288 papers resulted in the removal of 9208 records and full copies of the remaining 86 papers were obtained.

Following a full-text review 65 papers were excluded for the following reasons; 16 had participants whose age was not within the inclusion criteria, 10 did not use a measure of climate/focused on a specific element of climate e.g. organisational, four did not provide evidence of the setting being one for adolescents, 12 did not provide any statistical evidence as per the inclusion criteria, six papers were not written in the English language, eight were not conducted in a secure setting, five were test summary papers and four were unobtainable.

An additional six records were identified following hand searching of reference lists and relevant journals. Thus 21 papers from the database search met the inclusion criteria and were included in the current review. The flow of studies through the selection process is presented in Figure 1. Details of the included studies are presented in Table 3.

Figure 1

PRISMA flow diagram of search strategy for systematic review

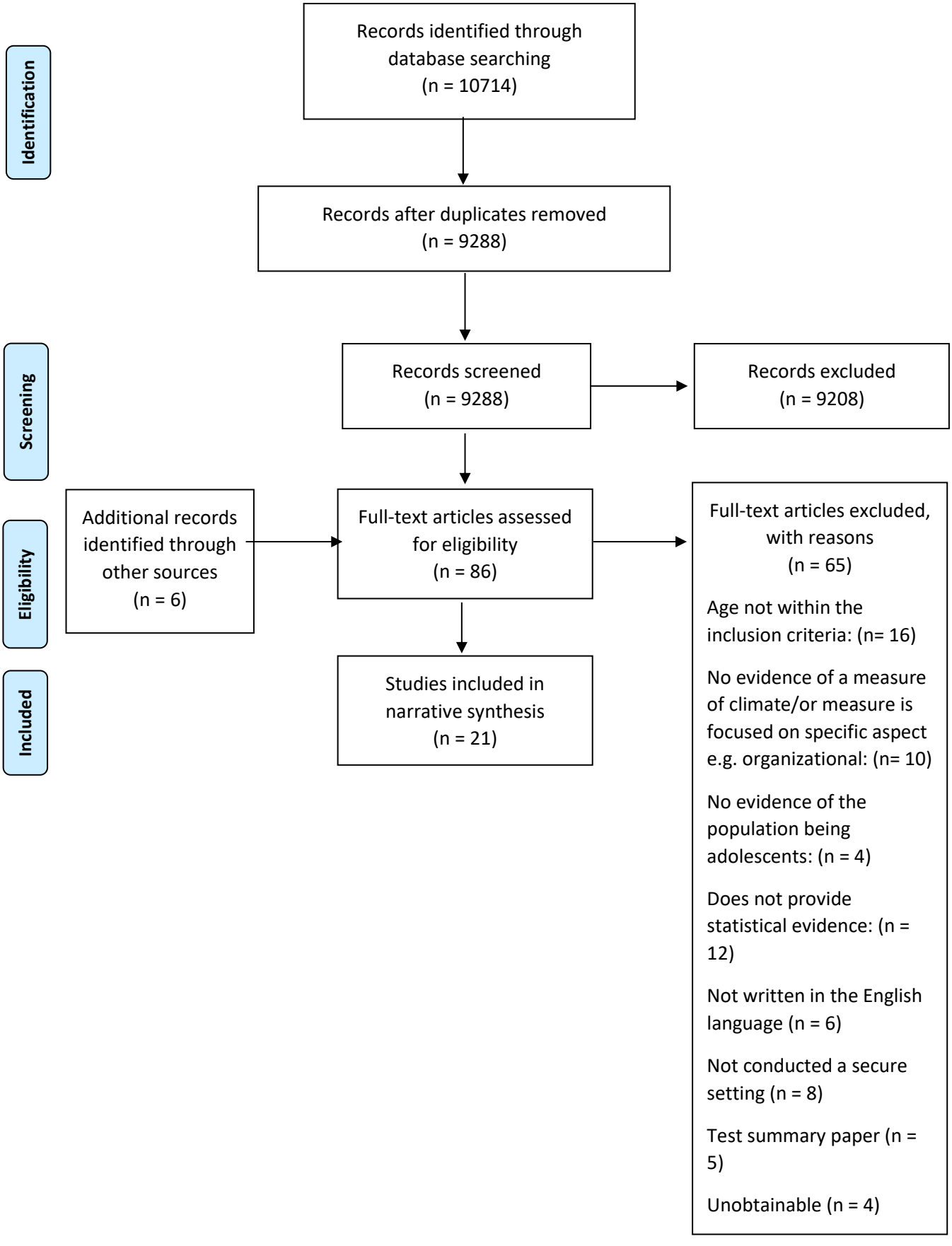


Table 3

Summary of Studies

Author and Date	Country	Full Sample (Residents/Staff)	Gender (Residents)	Age	Measure	Setting (as described in study)	Overall Quality Assessment
Armstrong & MacKenzie (2003)	USA	4121	Not reported	Not reported	Unnamed	Residential juvenile correctional facilities	Doubtful
Barton & Mackin (2012)	USA	33/38	Males	15-18	Correctional Institutions Environment Scale (CIES)	Secure juvenile correctional facility	Doubtful
Eltink, Hoeve, De Jongh, van der Helm, Wissink & Stams (2018)	Netherlands	198	Male and Female	M=16.2 (Males) M= 15.8 (Females)	Prison Group Climate Index (PGCI)	Residential youth care	Very Good
Eltink, van der Helm, Wissink & Stams (2015)	Netherlands	128	Male and Female	12-19	Prison Group Climate Index (PGCI)	Secure residential youth care/Juvenile correctional facility	Doubtful
Heal, Sinclair & Troop (1973)	England	376	Males	Not reported	Social Climate Scale (SCS)	Approved schools	Adequate
Kohn, Jeger & Koretzky (1979)	USA	320/118	Male and Female	9-18	Community Oriented Programmes Environment Scale (COPES)	Residential treatment	Inadequate
MacKenzie, Wilson, Armstrong, Styve & Gover (2001)	USA	4516	Male and Female	M= 16 (bootcamp)/ 16.3 (traditional facilities) (Males)	Unnamed	Bootcamp/traditional facilities	Inadequate

				M= 15.9 (bootcamp)/ 16 (traditional facilities) (Females)			
Minor, Wells & Jones (2001)	USA	0/107	-	-	Prison Social Climate Survey (PSCS)	Group homes administered by a state department of juvenile justice	Very Good
Mulvey, Schubert & Odgers (2010)	USA	1354	Male and Female	M=16.5	Unnamed	Juvenile justice facilities	Inadequate
Ray, Wandersman, Ellisor & Huntington (1982)	USA	84	Male	14-18	Correctional Institutions Environment Scale (CIES)	Juvenile correctional institution	Adequate
Styve, MacKenzie, Gover & Mitchell, (2000)	USA	4121	Not reported	Not reported	Unnamed	Bootcamps/traditional facilities	Very Good
Taylor & Walker (1996)	Canada	101	Males	14-18	Correctional Institutions Environment Scale (CIES)	Young offenders' facility	Inadequate
Towberman (1992)	USA	96	Females	13-18	Correctional Institutions Environment Scale (CIES)	State institution	Doubtful
Towberman (1993)	USA	96	Females	13-18 M= 15.4	Correctional Institutions	State institution	Doubtful

					Environment Scale (CIES)		
van der Helm, Beunk, Stams & van der Laan (2014)	Netherlands	59	Male and Female	12-20 M= 16.1	Prison Group Climate Index (PGCI)	Youth prison	Inadequate
Van der Helm, Klapwijk, Stams, & van der Laan (2009)	Netherlands	49	Male and Female	M=16.5	Prison Group Climate Index (PGCI)	Youth prison	Inadequate
van der Helm, Matthys, Moonen, Giesen, van Der Heide, & Stams (2013)	Netherlands	128	Male and Female	12-19 M= 15.7	Prison Group Climate Index (PGCI)	Youth prison	Doubtful
van der Helm, Stams, & van der Laan (2011)	Netherlands	77	Male and Female	M=15.4	Prison Group Climate Index (PGCI)	Youth prison	Inadequate
van der Helm, Stams, van der Stel, van Langen & van der Laan (2012)	Netherlands	59	Male	M=17.4	Prison Group Climate Index (PGCI)	Youth prison	Inadequate
van der Helm, Stams, van Genabeek & van der Laan (2012)	Netherlands	59	Male	M= 17.4	Prison Group Climate Index (PGCI)	Youth prison	Doubtful

van der Helm, Wissink, De Jongh & Stams (2013)	Netherlands	263	Male and Female	12-20 M= 14	Prison Group Climate Index (PGCI)	Youth prison	Inadequate

2.4.1 Definitions of Climate

Of the 21 studies included in this systematic review, seven studies reporting on three measures provided definitions of climate (see Table 4). Five studies, all reporting upon the PGCI, provided definitions distinguishing between Positive/Open and Negative/Closed climates and the characteristics of such climates. The number of characteristics of Positive/Open climates ranged from three to 13 and of Negative/Closed climates ranged from three to nine.

2.4.2 A Descriptive Summary of the Included Studies

Within the 21 studies included within this review, the psychometric evidence of seven measures of climate administered within secure settings accommodating children was reported upon. As two measures, the Correctional Institutions Environment Scale (CIES) and Community Oriented Programmes Environment Scale (COPES; Moos, 2009), were adapted from the same measure they have been reported on together. The research into climate in secure settings accommodating children spans nearly a 30-year period, with the majority of research being conducted in prisons within the United States of America (USA) and the Netherlands. The studies have sampled a total of 11598 participants, predominantly children but also the staff that work with them (see Table 5).

2.4.3 A Descriptive Summary of Climate Measures

The seven measures of climate identified varied in length from 36 to 165 items measuring between four and 13 scales (see Appendix 5). Two common themes within the scales of the seven measures were identified. These were Safety, that captured perceptions of fear, violence and the order and control present within an environment and Rehabilitative Culture/Therapeutic Environment that captured children's relationships with staff and each other, support, autonomy, hope and access to interventions/release planning. Scale descriptions for all seven measures are provided in Appendix 6.

Table 4

Definitions of Climate

Measure	Study Authors	Definition
CIES/COPES (Moos, 1987, 2009)	Ray, Wandersman, Ellisor and Huntington (1982)	"the personality of an environment" (p. 97)
PGCI (van der Helm, Klapwijk, Stams & van der Laan, 2009)	van der Helm, Beunk, Stams, and van der Laan (2014)	A structured, safe and therapeutic environment is often designated as an "open" climate when support is high, opportunities for growth are evidence and flexibility is in balance with organisational need for control. A repressive climate is characterised by an extremely asymmetric balance of power, great dependency on staff, lack of mutual response, emphasis on incremental and haphazard rules and punishment, boredom, hopelessness, fear and lack of protection (p. 262).
PGCI	van der Helm, Matthys et al. (2013)	An open living group climate is characterized by a rehabilitative atmosphere that fosters growth, and by supportive staff–youth relationships, advanced social functioning, and respect, resulting in less competition and more acceptance of others. In an open climate group workers' authority is accepted and respected and dependency of youths on group workers is minimal. Adolescents are held responsible for their own conduct, resulting in an internal locus of control and an inclination to accept help from others or to help others. A repressive living group climate is characterized by social disadvantage through an asymmetric balance of power, lack of mutual respect, humiliation and contempt of others (both staff and peers), extreme competition, an emphasis on punitive authority and extreme dependency of youths on group workers (p. 1581).
PGCI	van der Helm, Stams, van Genabeek et al. (2012)	A positive ('open') living climate is a structured, safe, and rehabilitative environment, where support is high, opportunities for growth are evident, where flexibility is in balance with the organizational needs for control, and repression is minimal. In an 'open' climate, incarcerated boys are motivated to connect to others in the environment, to take another person's perspective and show empathic responding. A repressive living group climate is characterized by distrust among young inmates and between inmates and group workers,

		contributing to mutual hostility. Hostility among young inmates is associated with aggression and violence as a means to maintain control (p. 25).
PGCI	van der Helm, Stams and van der Laan, (2011)	"those characteristics that distinguish the organization from other organizations and that influence the behavior of people in the organization" (Gilmer, 1966, p. 57, cited in van der Helm, Stams & van der Laan, 2011, p. 172). "A prison climate may be regarded as "open" when support is high, opportunities for growth are evident, and the prison is a safe and orderly structured environment where flexibility is in balance with the organizational needs for control and repression is minimal. The prison climate should be regarded as closed when support from staff is (almost) absent and opportunities for "growth" are minimal. A closed prison climate is also reflected by a grim and uninviting atmosphere (e.g., lack of safety and boredom) and high repression, including incremental rules, little privacy, and (frequent) humiliation of inmates" (p. 161).
PGCI	van der Helm, Stams, van der Stel, van Langen and van der Laan (2012)	A structured, safe, and rehabilitative environment at the living group is designated as an open group climate (Van der Helm, Stams, & Van der Laan, 2011 as cited in van der Helm et al, 2012, p. 1151). A closed or repressive group climate is characterized by an extremely asymmetric balance of power, great dependency on staff, lack of mutual respect, emphasis on incremental and haphazard rules and punishment (chickenshit rules), aggression, boredom, hopelessness, fear, and lack of protection" (p. 1151).
Prison Social Climate Survey (PSCS; Saylor, 1984)	Minor et al., (2004)	"an intervening variable between an agency or organisation and the people in it" (p. 18). "The conditions within an organization, as expressed in the subjective impressions of organizational members" (Saylor & Wright, 1992, as cited in Minor et al. 2004, p. 18). "Social climate arises out of the shared perceptions that members of an agency have developed from their work experiences" (Wright, 1993, as cited in Minor et al. 2004, p. 18).

Table 5

A Descriptive Summary of the Included Studies

Measure	Date Range	Country	Sample (resident: staff)	Setting	Age	Gender
Correctional Institutions Environment Scale, (CIES; Moos, 1987/ Community Oriented Programmes Environment Scale (COPES; Moos, 2009) (6)[6]	1979-2012	Canada (1) USA (5)	790 (634[7]:156)	Prison (5) Residential Treatment (1)	9-18	Female (2) Male (3) Both (1)
Prison Group Climate Instrument (PGCI, van der Helm, Klapwijk, Stams & van der Laan, 2009) (9)	2009-2018	Netherlands (9)	1020 (1020: 0)	Prison (9)	12-20	Both (7) Male (2)
Prison Social Climate Survey (PSCS; Saylor, 1984) (1)	2004	USA (1)	107 (0:107)	Residential Care (1)	-	-
Social Climate Scale (SCS; Heal, Sinclair & Troop, 1973) (1)	1973	England (1)	376 (376:0)	Residential Treatment (1)	Not stated	Male (1)

[6] Number of studies are reported in brackets.
[7] Two of the studies appeared to use the same sample of participants.

Un-named (Mulvey, Schubert & Odgers, 2010) (1)	2010	USA (1)	668	Prison (1)	18[8]	Both (1)
Un-named, (Styve, MacKenzie, Gover & Mitchell, 2000) (3)	2001-2003	USA (3)	8637 (8637[9]:0)	Prison (3)	15-16	Both (3)

[8] The age range of participants was not reported. The number reported is the mean age of participants at their release.
[9] Two of the studies appeared to use the same sample of participants.

2.4.4 The Psychometric Properties of Climate Measures

The studies included within this review reported on at least one of the types of psychometric evidence: Factor Structure (Principal Component Analysis, Exploratory Factor Analysis, Confirmatory Factor Analysis), Internal Consistency (Cronbach Alpha), Reliability (for example Test-Retest), Construct Validity (Convergent or Discriminant validity) or Responsiveness. Due to lack of homogeneity, a meta-analysis was not undertaken. Based on the guidance of Popay et al. (2006) a narrative synthesis was completed instead. A range of psychometric evidence was reported in the literature (see Table 6) and as such each measure, including its development, is discussed in turn.

Table 6

A Summary of Psychometric Evidence for the Measures of Climate

Measures	Tests of Factor Structure	Test of Internal Consistency	Tests of Reliability	Tests of Validity	Tests of Responsiveness
Correctional Institutions Environment Scale/ Community Oriented Programmes Environment Scale	Yes (1; COPES)	No	Yes (1; COPES, 2; CIES)	Yes (1; COPES,2; CIES)	Yes (1; COPES, 1; CIES)
Prison Group Climate Index	Yes (3)	Yes (9)	No	Yes (6)	No
Prison Social Climate Survey	No	Yes	No	No	No
Social Climate Scale	Yes	Yes	No	No	No
Un-named (Mulvey, Schubert & Odgers)	Yes	Yes	No	No	No
Un-named, (Styve, MacKenzie, Gover & Mitchell)	Yes (2)	Yes (3)	No (0)	Yes (1)	No

Correctional Institutions Environment Scale (Moos, 1987)/ Community Oriented Programmes Environment Scale (Moos, 2009)

The CIES, a 90-item measure, and the COPES, a 100-item measure, were adapted from the Ward Atmosphere Scale (WAS; Moos, 1974, 1989; Moos & Houts, 1968) a 100-item measure. The WAS was originally developed through observations conducted on several psychiatric wards, interviews with staff and service users and relevant literature. The CIES and COPES were developed in response to the need for alterations for the WAS' use within different settings and was constructed based on theoretical assumptions and item content validity (Leipoldt, Kayed, Harder, Grietens & Rimehaug, 2018). The CIES/COPES focuses upon three features of climate, Relationships, Personal Growth and System Maintenance. The CIES consists of nine scales whereas the COPES' consists of 10 scales as it includes the additional scale of Aggression and Anger. Most questions are responded to using True or False. Scores on each scale range from 0 to nine/10 with higher scores reflecting more positive perceptions of the climate (Barton & Mackin, 2012).

One study explored the factor structure of the CIES/COPES. Whilst the CIES/COPES were based on a three-factor model, Kohn, Jeger and Koretzky (1979) explored seven component solutions for two newly developed parallel instruments; COPES-School and COPES-Cottage using PCA from which a two component solution was chosen. This was reported to account for 28% of the communal variance of the COPES-School responses and 37% of the COPES-Cottage responses. Component I was named Support-Involvement vs. Disinterest and Component II was named Order-Organization vs. Disorder-Disorganization. Whilst similarities were identified between the two Components proposed by Kohn et al. (1979) and two of Moos' original factors; Relationship and System Maintenance, no empirical support was reported for Moos' third component Personal Growth (Kohn et al. 1979). As such there appears to be differences of opinion as to the factor structure of the COPES that calls into question the existing factor structure. Despite this, there was limited evidence, based upon one study and a 'poor' participant sample (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010) for the new proposed factor structure of the COPES and it was unclear as to whether this factor structure was also applicable to the CIES.

Three studies reported evidence on the reliability of the CIES/COPES. Towberman (1992, 1993) reported test-retest correlation coefficient's ranging from .65 to .80 however did not provide any further information. Based on a modified short form version of the COPES, Kohn et al. (1979) reported split-half reliability coefficients for the COPES-School

and COPES-Cottage. Reliability coefficients (Spearman-Brown corrected) were reported to range from .56 to .70 on the COPES-School and .57 to .76 on the COPES Cottage. There is, therefore, limited evidence to support the reliability of the current and adapted versions of the CIES/COPES.

Three studies examined the construct validity of the CIES/COPES. In support of the CIES/COPES statistically significant relationships were reported between climate scores, specifically the Relationship dimensions and, when the influence of confounding factors was controlled for, counsellor-client similarity (Towberman, 1992) and how a group was perceived to be working together particularly around issues of helping (Taylor & Walker 1996). Furthermore, a statistically significant relationship was reported between satisfaction in school and cottage environments and the Relationships and System Maintenance domains of the CIES/COPES (Kohn et al. 1979). Whilst positive, the evidence to support the construct validity of the current and adapted versions of the CIES/COPES is limited.

Finally, two studies explored the responsiveness of the CIES/COPES, specifically the impact of an intervention on climate. Barton and Mackin (2012) found statistically significant changes in perceptions of climate for both children and staff following the implementation of a strength-based approach to assessment and case planning. Ray et al. (1982) found statistically significant changes when the density and size of dormitories were controlled. Whilst only the findings of two studies, these findings suggest that the CIES/COPES can detect meaningful differences in climates.

Prison Group Climate Index (van der Helm, Klapwijk, Stams & van der Laan, 2009)

The PGCI, a 36-item measure, was originally designed for use in adult prisons to assess open and closed/repressive climates. Each dimension was identified as contributing to and being responsible for the quality of climate within such settings. It was subsequently adapted for use with children (van der Helm et al., 2009) to assess four dimensions of group climate in both youth prisons and secure facilities. Each item is scored using a five-point Likert scale ranging from one (Do not agree) and five (Totally agree) (van der Helm, Stams, van Genabeek & van der Laan, 2012).

Three studies investigated the factor structure of the PGCI using PCA and CFA. Van der Helm et al. (2009) sought, using PCA and a participant sample size considered 'very poor' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010), to replicate the two-

factor model found in a sample of adult offenders. Factor loadings were strong (Furr, 2011) and ranged from .35 to .78 for Open Climate (Component One) and .41 to .60 for Closed Climate (Component Two) demonstrating a similar two-factor model. Using CFA and a participant sample size considered 'very poor' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010) and that did not meet the recommended sample size: variable ratio (Nunnally, 1982 as cited in Pearson & Mundform, 2010), van der Helm et al. (2011) presented a first four-factor and a second order factor model for the overall climate. Factor loadings were strong (Furr, 2011) for the first four factor model ranging from .42 to .83 for Support, .48 to .86 for Growth, .38 to .79 for Group Atmosphere and finally .61 to .95 for Repression. Factor loadings were very strong (Furr, 2011) for the second order factor model ranging from -.78 (Repression) to .92 (Support). Outcomes from the CFA were reported on the Root Mean Square Error of Approximation (RMSEA) as .04 indicating a good fit (Hu & Bentler, 1999) and Comparative Fit Index (CFI) was reported as .91 indicating an acceptable fit (Hu & Bentler, 1999). Van der Helm, Stams, van der Stel et al. (2012) provided no statistical information instead describing the four-factor structure as an "adequate model of fit" in a CFA (p.1152). Having demonstrated the use of both PCA and CFA using two separate participant samples, the initial statistical evidence detailed in the two studies appeared positive and supported the proposed factor structure of the PGCI. It was however based upon inadequate participant sample sizes and so the findings were considered limited.

Nine studies included in this review focused upon the PGCI. All nine studies reported on the internal consistency of the PGCI. Two studies reported the Cronbach alpha for the overall climate scale as .82 (van der Helm, Stams & van der Laan, 2011; van der Helm, Stams, van der Stel, Langen & van der Laan, 2012) and therefore above the commonly accepted minimum of .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). Five studies reported the Cronbach alpha for the two higher order factors; alpha levels for Open Climate ranged between .84 and .87 and Closed Climate ranged between .70 and .80 (Eltink et al., 2018; van der Helm, Beunk, Stams & van der Laan, 2014; van der Helm, Klapwijk, Stams & van der Laan, 2009; van der Helm, Stams, van Genabeek et al., 2012; van der Helm, Wissink, de Jongh & Stams, 2013) and therefore again above the commonly accepted minimum of .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). Five studies reported the Cronbach alpha of the individual four subscales. Repression was reported as ranging between .76 to .80, Support ranging between .70 to .90, Growth ranging between .86 to .91 and Group Atmosphere ranging between .70 to .78 (Eltink, van der Helm, Wissink &

Stams, 2015; Eltink et al., 2018; van der Helm, Beunk, Stams & van der Laan, 2014; van der Helm, Stams, van Genabeek & van der Laan, 2012; van der Helm, Stams & van der Laan, 2011). Two studies did not provide individual alphas; instead reporting that all four scales were equal to or exceeding .75 (van der Helm, Matthys et al., 2013) and .77 (van der Helm, Stams, van der Stel et al., 2012) again above the commonly accepted minimum of .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). There is good empirical support for the internal consistency of the PGCI.

Six studies examined the construct validity of the PGCI. All reported evidence of convergent validity; statistically significant relationships were reported between climate scores and the handling of problematic situations (Eltink et al., 2015; van der Helm, Matthys, et al., 2013), locus of control (van der Helm et al., 2009), treatment motivation (van der Helm, Beunk, Stams & Laan, 2014; van der Helm et al., 2009; van der Helm, Wissink et al., 2013), coping (van der Helm, Beunk et al., 2014), length of stay (van der Helm, Beunk et al., 2014), 'Big Five' personality traits (van der Helm, Stams, van Genabeek et al., 2012) and cognitive empathy that is the understanding of others emotions (van der Helm, Stams, van der Stel et al., 2012). Furthermore, a statistically significant relationship was reported between aggression and a positive climate (van der Helm, Stams, van Genabeek et al., 2012). Two studies reported evidence of Discriminant validity; no significant relationships were reported between climate and socially desirable answering (van der Helm, Stams, van Genabeek et al., 2012; van der Helm, Stams, van der Stel, van Langen & van der Laan, 2012) and a repressive climate and aggression (van der Helm, Stams, van Genabeek et al., 2012). There appears to be convincing evidence supporting the construct validity of the PGCI.

Prison Social Climate Survey (Saylor, 1984)

Saylor's (1984) intent in the development of the PSCS was to develop a measure that addressed a broad range of areas of concern to prison management. Saylor (1984) highlighted that the application and use of the measure were at the discretion of the administrator and the sections were designed to be administered either independently of each other or using any combination of subsets. The version for use with service users consists of a sociodemographic section and four dimensions; Quality of Life, Personal Well Being, Staff Services and Programmes Utilised and Personal Safety and Security. Each item is scored either yes/no or on three to seven-point Likert scales (Ross, Diamond, Liebling & Saylor, 2008). The staff version consists of a Socio-demographics and seven dimensions

Personal Safety and Security, Quality of Life, Personal Well-Being, Work Environment, Community Environment, Housing Preferences and finally a Special Interest section. Minor, Wells and Jones' study (2004), selected for use within this review, focused upon the Work environment section. This was described as consisting of seven subscales however definitions were not provided (see Appendix 6). The first five scales are scored on a seven-point Likert scale ranging from Strongly Agree to Strongly Disagree. The final two scales ask how often, ranging from never to all the time, in the last six months the staff member has experienced specific feelings (Minor et al., 2004).

The internal consistency of the PSCS' Work Environment subscale was reported on. Minor et al. reported the Cronbach alpha values ranged from .74 (Job satisfaction) to .94 (Perceptions of Supervision). All seven subscales achieved alpha values above the commonly accepted minimum of .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). Whist the findings of Minor et al. indicate some support for the PSCS's Work Environment Scale's internal consistency, this is based upon one study and participant sample and is therefore limited.

Social Climate Scale (Heal, Sinclair & Troop, 1973)

The SCS, a 47-item measure, was developed in response to the authors aim to measure different albeit related aspects of climate. The SCS was developed using previous research regarding the characteristics of wardens whose hostels had low levels of delinquent behaviour, theory and observation (Sinclair, 1971, as cited in Heal et al., 1973). Scoring criteria was not provided.

One study included in this review focused upon the SCS measure and was published by the measure's authors. Heal et al. reported psychometric evidence of the SCS' factor structure and internal consistency. The SCS' factor structure was explored using PCA and a participant sample size considered 'good' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010). A two-component model was chosen that accounted for 53% of variance. Whilst no statistical details of the factor loadings were provided, Component One was identified as Evaluative upon which Satisfaction, Boy Friendliness and Support were reported as loading most heavily on to and Component Two was identified as Strictness upon which Strictness and Work were reported as loading on to (Heal et al., 1973). The evidence of SCS' factor structure is based upon one study and participant sample and therefore limited.

The Cronbach alpha values of the six scales ranged from 0.47 (Satisfaction) and 0.72 (Boy friendliness). Four of the scales alpha values were above .50 and therefore considered acceptable (Nunally, 1973, as cited in Streiner, 2003) given at the time of publication the SCS was in the initial stages of development. Alpha levels for two scales, Work and Satisfaction, were however noted to be below .50. The evidence of SCS' internal consistency is limited to one study and, given the alpha levels of two of its scales, not without concerns.

Unnamed (Mulvey, Schubert & Odgers, 2010)

Mulvey et al. (2010) developed a 165-item measure in response to what they described as the lack of reliable and valid measures for use in secure settings accommodating children and the acknowledgment that this population may view, and be affected by, institutional environments differently to adults. The dimensions were developed based on the notion that they reflect the general attributes of institutional environments and are likely to affect the later adjustment of children and young people who have spent time there. Definitions of the scales, subscales and scoring criteria were not provided.

One study included in this review focused upon Mulvey et al's. unnamed measure. Evidence of the measures' factor structure and internal consistency was provided. The factor structure of Mulvey et al's. measure was investigated using Exploratory and Confirmatory Factor Analysis and a participant sample considered 'excellent' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010). Whilst no statistical details of the EFA were provided, outcomes from the CFA were evaluated for the four newly created dimensions and subscales using the Root Mean Square Error of Approximation (RMSEA) and the Comparative Fit Index (CFI). For the dimension Safety, a two-factor model was reported. The RMSEA was reported as .08 indicating an acceptable fit and the CFI was reported as .97 indicating a good fit (Hu & Bentler, 1999). For the dimension Institutional Order, a three-factor model was reported. The RMSEA was reported as .07 indicating an acceptable fit and CFI was reported as .94 again indicating an acceptable fit (Hu & Bentler, 1999). For the dimension Fairness, a two-factor model was reported. The RMSEA was reported as 0.4 indicating a good fit and the CFI was reported as .99 indicating a good fit (Hu & Bentler, 1999). Finally, for the dimension Re-entry Planning a one-factor model was reported. The RMSEA was reported as .08 indicating an acceptable fit and the CFI was reported as .98 again indicating a good fit (Hu & Bentler, 1999). The evidence of the factor

structure of Mulvey et al's. measure is complex and whilst appearing promising is limited to a single study.

The Cronbach alpha values of the 16 scales ranged from .56 (Restrictions) to .95 (Peer delinquency). All 16 scales alpha values were reported to be above .50 and therefore considered acceptable (Nunally, 1973, as cited in Streiner, 2003) given at the time of publication the measure was in the initial stages of development. Ten alpha values were reported to be above the recommended .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). Of those however, one was reported to be above .95. This may be indicative of duplication of content as opposed to a desirable level of internal consistency (Streiner, 2003). The evidence of internal consistency of Mulvey et al's. measure is based upon one study alone and therefore considered limited. Furthermore, given the alpha levels of five of its scales, it is not without concerns.

Unnamed (Styve, MacKenzie, Gover & Mitchell, 2000)

Styve et al., (2000) developed their measure of the environmental quality of youth custody based upon the concepts within three performance-based models that included quantitative measures used to measure the social and physical environment of youth custody facilities. The three models were Logan's Quality of Confinement Model (Logan, 1992), Office of Juvenile Justice and Delinquency Prevention Conditions of Confinement (as cited in Armstrong & MacKenzie, 2003) and Wright's Prison Environment Indices (PEI; 1985). Styve et al's. 129 item measure was stated to be informed by literature and designed to represent 13 aspects of youth custody facilities. Most questions are based on a five-point Likert scale. Higher scores reflect higher perceptions in the direction of the name of the scale (MacKenzie, Wilson, Armstrong & Gover, 2001).

Three studies included within this review focused upon Styve et al's. measure and two investigated the factor structure. Styve et al. reported the use of CFA and a sample size considered 'excellent' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010) to develop the 13 scales. Styve et al's. study was the only one included in this review that reported statistical evidence of sample size, reporting Kaiser-Meyer-Olkin, despite this no further statistical analysis was provided. MacKenzie et al. (2001) reported the use of EFA and a sample size considered 'excellent' (Comrey & Lee, 1992, as cited in Pearson & Mundform, 2010) that suggested a one or a three-factor model. The one-factor model was concluded to represent the overall perception of the environment whereas the three-factor model consisted of the Therapeutic Environment, Hostile Environment and Freedom

and Choice. Within the study's appendices the factor loadings of the three higher order factors were reported. Factor loadings were strong (Furr, 2011) ranging from .40 to .66 for Therapeutic Environment, .40 to .62 for Hostile Environment and .40 to .57 for Freedom and Choice. MacKenzie et al. used the three-factor model within their study. Whilst it is positive that the factor structure of Styve et al's. measure was explored using CFA and EFA it is unusual that EFA was used following CFA. Furthermore, whilst positive, the description of the EFA was limited (Kahn, 2006) and consequently the researcher's decision making could not be reviewed. As such the evidence for the factor structure of Styve et al's. measure is complex and as it is based only upon two studies, considered limited.

All three studies reported on the internal consistency of Styve et al's measure. MacKenzie et al. reported on the internal consistency of the three higher order factors; the Cronbach alpha values ranged from .78 (Freedom and Choice) to .93 (Therapeutic Environment). All three factors achieved alpha values above the commonly accepted minimum of .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). The evidence of the internal consistency of the three higher order factors of Styve et al's. measure, whilst positive, is based only upon one study and therefore considered limited. Styve, et al. and Armstrong and MacKenzie (2003) reported on the internal consistency of the thirteen scales and reported similar alpha levels. Styve, et al. reported Cronbach alpha values that ranged from .45 (Freedom) to .89 (Therapeutic Programmes) and Armstrong and MacKenzie (2003) reported alpha level that ranged from .45 (Preparation for Release) to .90 (Therapeutic Programmes). The same ten scales within both studies were reported to have alpha levels above the recommended .70 (DeVellis, 1991; Nunnally & Bernstein, 1994). However, in both studies, the alpha values of two scales, Freedom and Quality of Life, were below .60 and therefore considered questionable (George & Mallery, 2003) and the alpha value of one scale, Preparation for Release, was below .50 and therefore considered unacceptable (George & Mallery, 2003). Whilst the evidence of the internal consistency of the scales within Styve et al's. measure appears consistent, this was limited to two studies and not without concerns due to low alpha values.

One study examined the construct validity of Styve et al's. measure. McKenzie et al. (2001) reported a significant relationship between a hostile and repressive climate and depression and anxiety. This provides limited evidence of the construct validity of Styve et al's. measure.

2.4.5 Quality Assessment

Following data extraction, the methodological quality ratings of the studies were reviewed (see Appendix 7). Of the 21 studies included within this review three were assessed as Very Good, two were assessed as Adequate, seven were assessed as Doubtful and nine were assessed as Inadequate (Mokkink et al., 2018).

Quality of the Psychometric Property

The quality of the psychometric properties of each of the seven measures was evaluated (see Table 7) based on the criteria described by Cordier et al. (2017) and Terwee et al. (2007) (see Appendix 3). The Content validity of the SCS and the Unnamed measure (Mulvey, Schubert & Odgers, 2010) was rated as both studies were reporting on the development of a new measure. The Content validity for both measures was rated as Indeterminate due to a lack of clear descriptions of the measurement aim and concepts being measured (Cordier et al., 2017; Terwee et al., 2007).

Internal consistency was rated for all seven measures. The internal consistency of the CIES/COPES, PGCI and PSCS was rated as Indeterminate due to either a lack of the use of factor analysis or doubtful design when factor analysis was completed. The internal consistency of the SCS and two Unnamed measures (Mulvey, Schubert & Odgers, 2010; Styve et al., 2000) were rated as having conflicting results due to some scales within the measure having Cronbach Alpha levels below .70, some between .70 and .95, and some being equal to or more than .95 (Cordier et al., 2017; Terwee et al., 2007).

Construct validity was rated for two measures. The construct validity of the CIES/COPES was rated as Positive as specific hypotheses were formulated and at least 75% of the results were in accordance with the hypotheses. The construct validity of the PGCI was rated as having conflicting results. Whilst most studies had formulated specific hypotheses and at least 75% of the results were in accordance with the hypotheses, two studies had either not generated hypotheses or 75% of their results were not in accordance with the hypotheses. The Construct validity of the unnamed measure (Styve et al., 2000) was rated as Negative due to hypotheses being formulated but less than 75% being supported (Cordier et al., 2017; Terwee et al., 2007).

The reliability of the CIES/COPES was rated as Indeterminate as a time interval was not mentioned (Cordier et al., 2017; Terwee et al., 2007). Finally, the responsiveness of the

CIES/COPES was not evaluated due to not being reported in line with the criteria of Cordier et al. (2017) and Terwee et al. (2007).

Table 7

Psychometric Quality of Measures of Climate (Cordier et al., 2017; Terwee et al., 2007)

Measure	Content Validity	Internal Consistency	Construct Validity	Reliability	Responsiveness
CIES/COPES	NE	?	+	?	NE
PGCI	NE	?	±	NR	NR
PSCS	NE	?	NR	NR	NR
SCS	?	±	NR	NR	NR
Un-named (Mulvey, Schubert & Odgers, 2010)	?	±	NR	NR	NR
Unnamed (Styve, MacKenzie, Gover & Mitchell, 2000)	NE	±	-	NR	NR

+ = positive rating; ? = Indeterminate rating; - = negative rating; ±= conflicting data; NR = Not reported; NE = Not evaluated.

2.4.6 Overall Psychometric Quality

The overall level of psychometric quality of each of the measures of climate was derived by integrating the ratings of both the methodological quality of the studies using the COSMIN checklist (see Table 3); and the quality criteria for the psychometric properties of assessments (see Table 7). The overall psychometric quality was based on the criteria described by Schellingerhout et al., (2012) and Cordier et al. (2017). Content Validity was not assessed due to the methodological quality of the studies not being evaluated.

When determining the overall psychometric quality of the seven measures of climate, 14 of the 24 reported ratings were classified as Not Reported or Not Evaluated. The overall psychometric quality of the internal consistency of four measures, the CIES/COPES, PGCI and PSCS, was rated as Indeterminate due to there being indeterminate data. The SCS and two Unnamed measures (Mulvey et al., 2010; Styve et al., 2000) were rated as Conflicting due to there being conflicting findings.

The overall psychometric quality of the Construct validity of the CIES/COPES was rated as Limited due to only one study (Towberman, 1992) that was rated as having adequate methodological quality (Schellingerhout et al., 2012; Cordier et al. 2017). The quality of the Construct validity of the PGCI was rated as Conflicting due there being conflicting findings. Finally, the quality of the Construct validity of the Unnamed measure (Styve et al., 2000) was rated as Strong (Negative) due to a negative quality rating in a study rated as Very Good.

Finally, the overall psychometric quality of the reliability of the CIES/COPES was rated as Indeterminate due to there being indeterminate data (see Table 8).

Table 8

Overall Psychometric Quality of Seven Measures of Climate

Measure	Internal Consistency	Construct Validity	Reliability	Responsiveness
CIES/COPES	Indeterminate	Limited	Indeterminate	NE
PGCI	Indeterminate	Conflicting	NR	NR
PSCS	Indeterminate	NR	NR	NR
SCS	Conflicting	NR	NR	NR
Un-named (Mulvey, Schubert & Odgers, 2010)	Conflicting	NR	NR	NR
Unnamed (Styve, MacKenzie, Gover & Mitchell, 2000)	Conflicting	Strong Negative	NR	NR

Levels of Evidence: Strong evidence positive/negative result = Consistent findings in multiple studies of good methodological quality OR in one study of excellent methodological quality; Moderate evidence positive/negative result = Consistent findings in multiples studies of fair methodological quality OR in one study of good methodological quality; Limited evidence positive/negative = One study of fair methodological quality; Conflicting evidence = Conflicting findings; Not Evaluated = studies of poor methodological quality according to COSMIN excluded from further analyses; Indeterminate = Studies with Indeterminate measurement property rating; NR = Not reported.

2.5 Discussion

The overarching aim of the current review was to synthesise the research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. The measurement of climate within such settings is important to both practitioners and commissioners. Without robust and appropriate measures we cannot be sure that the concept of climate is being assessed adequately, which in turn has significant implications for the conclusions that might be made about these environments. Specific objectives of this review were to examine how climate within secure settings accommodating children has been defined, explore what measures have been used to evaluate perceptions of climate within these settings and to evaluate the evidence regarding the psychometric properties of those measures. Each objective is discussed including limitations of the current study and recommendations for future practice.

Examine how climate within children and young people's secure settings has been defined

Of the 21 studies included in this review, seven reporting on three measures provided definitions of climate. Whilst not providing an overall definition of climate, provided in five studies reporting on the psychometric properties of the PGCI were the definitions of Positive/Open and Negative/Closed climates. The consistent use of this distinction is perhaps unsurprising given that the author van der Helm was involved in both the development of the PGCI and the studies included within this review that have reported this distinction. Furthermore, not only were Positive/Open and Negative/Closed climates defined, the characteristics of such climates were identified. Whilst this is positive as it helps to understand and evaluate the content validity of the PGCI, the number of defined characteristics of Positive/Open climates ranged from three to 13 and characteristics of Negative/Closed climates ranged from three to nine. No explanation is offered for this variation. A possible explanation is that the five studies spanned nearly five years of research and this development in the specificity of the characteristics of Positive/Open and Negative/Closed climates may reflect the development in understanding climate as a construct. Of the remaining studies, two cited definitions provided by previous authors including Saylor and Wright (Saylor & Wright, 1992, as cited in Minor et al., 2004) and Wright (Wright, 1993, as cited in Minor et al., 2004). These either lacked specificity as to what climate is (Ray, Wandersman, Ellisor & Huntington, 1982) or focused on climate

being based on the perceptions of those within an organisation (Saylor & Wright, 1992, as cited in Minor et al., 2004; Wright, 1993, as cited in Minor et al., 2004).

The quality assessment of Content validity was undertaken for two measures, the SCS and the Unnamed measure (Mulvey, Schubert & Odgers, 2010). Both were rated as Indeterminate (Cordier et al., 2017; Terwee et al., 2007). This is not unsurprising as neither study was identified as one of the seven that included a definition of climate.

The findings of the current study highlights two issues; firstly, the overall lack of definition of climate as a concept and secondly the lack of consistency in the definitions that were provided. The overall lack of definition may be the result of previously established measures being used and therefore studies not seeking to establish or explore content validity. However, the lack of consistency within those definitions that were provided highlights that there is not one consistent agreed definition, and this may be as a result of the concept not being easily definable (Day, Casey, Vess & Huisy, 2012; Hulme, 2015). This may also explain why researchers have not sought to define the concept of climate. Without a definition of the concept of climate we cannot be sure that measures are valid. Furthermore, the definitions of climate that were provided are those that appear within literature focused upon climate within adult secure settings. Given the recognition of developmental differences existing between children and adults that results in these populations being treated separately at an organisational level, it is unclear whether these definitions are appropriate. The question of whether children perceive the concept of climate in the same way as adults remains unaddressed and unanswered.

Explore what measures have been used to evaluate climate within secure settings accommodating children

Evaluate the evidence regarding the psychometric properties, including, Internal Consistency, Factor Structure, Reliability, Validity and Responsiveness, of those measures.

In total 21 studies met the inclusion criteria, reporting upon the psychometric properties of seven measures of climate administered within secure settings accommodating children. For three measures, the PSCS, SCS and Un-named measure (Mulvey, Schubert & Odgers, 2010), only single studies were identified reporting on one or more of the psychometric properties within the scope of this review. The most researched measure was the PGCI (van der Helm et al., 2009). Most studies only addressed a few of the five measurement properties evaluated within this review (average one; range one to

three). Three were rated as Very Good, two were rated as Adequate, seven were rated as Doubtful and nine were rated as Inadequate (Mokkink et al., 2018). When determining the overall psychometric quality of the measures of climate, 18 of the 30 reported ratings were either Not Reported or Not Evaluated and seven were rated as Indeterminate. Furthermore, when determining the overall quality of each psychometric property per measure, 14 of the 24 ratings were Not Reported or Not Evaluated and four were rated as Indeterminate. Consequently, the reporting of psychometric properties of measures of climate within the literature paints an incomplete picture. The lack of psychometric data in the literature is worrying. Whilst missing data does not necessarily indicate poor psychometric quality (Cordier et al., 2017), without it, decisions regarding the selection of measures is based upon incomplete psychometric evidence. This may in turn impact upon both the interpretation and generalisability of results.

Evaluation of the reliability (internal consistency, test-retest) was conducted in most of the included studies (18 of 21). Internal consistency, including the internal consistency of the overall measure, higher order factors and individual scales, was the most frequently reported psychometric domain and reported for five of the seven measures; the PGCI, PSCS' Work Environment subscale, SCS and the two unnamed measures of Mulvey et al. (2010) and Styve et al. (2000). For the majority of studies reporting internal consistency the methodological quality was rated as 'Very Good'. The four studies rated as 'Inadequate' was due to a lack of statistical calculations for each scale and/or subscale. Whilst internal consistency is less relevant to the overall measure of climate, given the multidimensional nature of this concept (Terwee et al., 2007) it is relevant where multidimensional measures propose unidimensional scales. In this case unidimensional scales should be internally consistent. Evaluation of the factor structure using EFA, PCA and/or CFA was conducted in a small number of the included studies (8 of 21) and reported on for five of the seven measures; the CIES/COPES, PGCI, SCS, and the unnamed measures of Mulvey et al. (2010) and Styve et al. (2000). The studies that reported the use of EFA provided little detail (Kahn, 2006) and therefore the researcher's decision making regarding the factor structure could not be reviewed nor commented upon. Positively however, the studies that reported the use of CFA provided the most popular fit statistics (Klein, n.d., as cited in Parry, n.d.). When determining the psychometric quality of the internal consistency, three measures, the CIES/COPES, PGCI and the PSCS' Work Environment subscale were rated as 'Indeterminate'. This was predominantly due to a lack of factor analysis having been completed. As such, when determining the overall quality, the same measures were also rated as

Indeterminate. The remaining three measures; the SCS and two Unnamed measures (Mulvey et al., 2010; Styve et al. 2000) were rated as Conflicting due to there being conflicting findings regarding the Cronbach Alpha levels. As such, when determining the overall quality, the same measures were also rated as Conflicting.

Further evaluation of reliability was reported for the CIES/COPES. The three studies methodological quality were rated as 'Doubtful' or 'Inadequate'. The psychometric quality of the reliability of the CIES/COPES was rated as Indeterminate due to the methodology used to assesses reliability not being reported. As such, the overall quality of the CIES/COPES was also rated as Indeterminate. The appropriateness of the use of test-retest methodology to examine the reliability of climate measures has been questioned (Tonkin, 2016). Whilst the time-period between administration is not considered a criterion for good measure properties (Terwee et al., 2007) it is difficult to know what an appropriate interval is over which to examine the test–retest reliability of climate measures given that climate is fluid, mailable and changeable (Lewis, 2017).

Evaluation of validity, specifically construct validity, was conducted in nearly half of the included studies (10 of 21) and reported on for three of the seven measures; the CIES/COPES, PGCI, and the Unnamed measure (Styve et al., 2000). When determining the psychometric quality of the three measures, the CIES/COPES was rated as positive due to specific hypotheses being formulated and at least 75% of the results were in accordance with the hypotheses (Cordier et al., 2017; Terwee et al., 2007). The PGCI was rated as Conflicting due to there being conflicting findings and the Unnamed measure (Styve et al., 2000) was rated as Negative due to hypotheses being formulated but less than 75% being supported (Cordier et al., 2017; Terwee et al., 2007). When determining the overall quality score per psychometric property per measure, the CIES/COPES was assessed as limited due to the presence of only one study rated as having Adequate methodological quality (Schellingerhout et al., 2012; Cordier et al. 2017). The quality of the construct validity of the PGCI was rated as Conflicting due there being conflicting findings and the Unnamed measure (Styve et al., 2000) was rated as Strong (Negative) due to the Negative psychometric quality rating within a study rated as Very Good.

Of the requirements, responsiveness was the least explored. Specifically, only the responsiveness of the CIES/COPES was explored within three studies. When evaluating the psychometric and the overall psychometric quality this could not be rated due to not being

reported in line with the criteria of Cordier et al. (2017) and Terwee et al. (2007). As such no conclusions regarding the responsiveness of the CIES/COPES could be made.

When considering the overall psychometric quality of the seven measures of climate, none were assessed as demonstrating overall strong positive and/or negative psychometric quality. The amount of psychometric data identified as missing or rated as indeterminate indicated an urgent need for further research to determine the psychometric properties of these measures. The findings demonstrate that measures of climate available for use within secure settings accommodating children are not well validated and caution should be exercised regarding decisions to utilise any of the identified measures to evaluate new and/or existing services.

Strengths and Limitations of The Review

The overall strength is that this review, to the researcher's knowledge, is the first to collate and synthesise the available literature regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. It addresses a clear gap in the current literature, and, through the synthesis of the research, the review highlights several implications and opportunities for future development and research.

With regards to limitations, firstly the search strategy excluded any papers that were not published in the English language. It was noted that five papers were excluded based on this criterion. This may have resulted in a well validated measure of climate used within children's secure settings being omitted from this review.

Exploration of both medical and health databases were undertaken during initial scoping searches. However, these were not utilised within the final search due to not identifying key studies within the scoping searches. This may have resulted in research completed within medical or health settings utilising measures of climate being omitted from this review.

After data collection and analysis of the included studies, it was highlighted by a professional with clinical and research experience within custodial settings that US/Canadian terms for prison such as 'correctional' had not been included in the search terms but may have been appropriate. Any future review of this type should consider various terms used internationally to describe 'prison'.

The researcher alone applied the inclusion/exclusion criteria, extracted the data from the selected papers and completed the quality evaluation. It is unknown whether an unconscious selection bias was introduced. Whilst the use of a review protocol was implemented to reduce the possibility for bias, and discussions were had within supervision regarding the selection of individual papers it may have been beneficial for a second researcher to implement the inclusion/exclusion screening, selection tool and quality assessment on a small number of the retrieved papers to assess for inter-rater reliability.

The COSMIN methodology was applied to assess the quality of the measures. Whilst the researcher identified this as appropriate given the aims of this review it is also recognised that the COSMIN methodology was designed for Patient Outcomes measures, which measures of climate are not. As such the methodology for evaluating, for example, construct validity was not relevant and could not therefore be applied.

Finally, the inclusion/exclusion criteria, specifically the requirement of statistical evidence of Internal Consistency, Factor Structure, Reliability, Construct Validity or Responsiveness, resulted in the exclusion of research regarding measures of climate, such as the Essen Climate Evaluation Schema (EssenCES; Schalast & Tonkin, 2016a). Given the comparative infancy of this measure, the literature has begun by providing initial normative data and recommended further research to explore the EssenCES as to its usefulness and application to children within secure settings (Glennon, & Sher, 2018).

Implications for Future Practice

Collection and synthesis of the existing research has allowed for an overview of the current available climate measures and their psychometric properties used within secure settings accommodating children. Several implications for practice and policy were identified from the review.

This review recognised and acknowledged the developmental differences between children and adults that are reflected in both literature and organisational approach including that of HMPPS. Previous research and systematic reviews (Tonkin, 2016) however have not recognised and/or acknowledged these differences. It is imperative that within both academia and practice this distinction is continued to be recognised and literature and policy regarding adults within secure settings are not generalised and applied to children unless there is evidence that suggests such generalisations are appropriate.

The review concluded that measures of climate used within secure settings accommodating children are not well validated and researchers and practitioners should therefore be exercising caution if considering utilising any of the identified measures to evaluate new and/or existing initiatives or services. Furthermore, commissioners should not rely solely on evaluations utilising any of the measures identified within this review to make decisions regarding the future of initiatives and/or services. Should any further measures of climate being used within secure settings accommodating children be identified that are not considered within this review it is imperative that practitioners seek to understand and evaluate their psychometric properties prior to their use.

Only one of the measures, the CIES/COPES, identified within this review was applied to participant samples of both children and the staff working with them. Of the six remaining measures, five were administered to participant samples of children alone and one, the PSCS's Work Environment scale was administered to a participant sample of staff. Whilst the PSCS's Work Environment scale was designed to measure staff perceptions there are reported differences in the way in which climate is perceived by staff and children (Smith, Maume & Reimer, 1997). As such the appropriateness of children and the staff working with them completing measures regarding perceptions of climate should be considered and explored. This would obtain a balanced view of the climate (Tonkin, 2016).

Future Research

The current review highlights the lack of consistency regarding a definition of climate within secure settings and raises the question as to whether existing definitions apply to children within such settings. This review assumes that the concept of climate is different for children when compared to adults within secure settings. As such future studies should seek to explore this assumption and establish whether children perceive climate within secure settings similarly or differently to adults and what, if any, differences exist in the way children at various stages of development perceive climate.

None of the measures identified through this review have received any substantive support for their internal consistency, factor structure, reliability, validity, or responsiveness when assessing the climate of secure settings accommodating children. As such future research should continue to seek to provide evidence regarding the psychometric properties of measures of climate used within these settings. This may include the development of existing or new measures, but this should be done using relevant measure development and climate literature.

Whilst published quality criteria for assessment for health status measures was applied within this review, given the dynamic nature of climate (Lewis, 2017) and the limitations identified with regards to the use of Internal Consistency and Test-Retest methodology (Tonkin, 2016) it may be beneficial for future research to seek to develop quality criteria for the validation of climate measures. Specifically, it is recommended that consideration is given as to how the responsiveness of measures of climate could be evaluated and the criteria for doing so. This would be beneficial for measures developed for use with both children and adults.

2.6 Conclusion

This review synthesised the existing research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. Within the current review there were seven measures of climate identified within 21 papers. Papers defining the concept of climate were limited and the definitions that were provided were found to be lacking consistency. This highlighted that there is not one consistent agreed definition, which may be a result of the concept of climate not being easily definable. However, without understanding how the concept of climate is being defined we cannot be sure that measures are robust or appropriate.

Evidence of varying degrees of the psychometric properties of seven measures of climate were identified. Despite this following assessment of the methodological quality, the quality of the psychometric properties including internal consistency, factor structure, reliability, validity, or responsiveness, and the overall quality of psychometric properties it was concluded that there was no substantive support for any of the measures.

The review concluded that measures of climate used within secure settings accommodating children are not well validated and researchers and practitioners should be exercising caution if considering utilising any of the identified measures to evaluate new and/or existing initiatives or services. This review has offered a valuable step forward in addressing the need for a clear evaluation of climate measures within children's secure settings. It has also identified the need for further research to enable the understanding, monitoring and improvement of climate for those working with children in secure settings.

Chapter 3

"The weather is like a personality so there's weeks or there's months where the climate the weathers bad but then there's weeks or months where the climate weather is good": An exploration of factors influencing climate within secure settings as perceived by children accommodated within public sector HMYOIs.

3.1 Abstract

Introduction: Existing theoretical and conceptual frameworks of climate have been developed using adult populations. This creates difficulties for practitioners to evaluate the appropriateness of utilising existing measures with children. Current research is therefore needed to understand and develop the evidence base regarding conceptual frameworks of climate within secure settings accommodating children. This will aid practitioners to identify and employ appropriate measures as part of evaluations that in turn will inform commissioning of services.

Aims: The aim of this research was to explore what factors influence climate within secure settings, specifically public sector HMYOIs, utilising the perspectives of children residing there.

Method: Largely unstructured interviews were conducted with 11 male children accommodated within four public-sector YOIs. The resultant transcripts were analysed using Thematic Analysis (TA).

Analysis: Three overarching themes and an additional five themes were identified in response to direct questions regarding climate and what influences this. The three overarching themes were 1. Staff, 2. Violence and Safety, 3. Relationships and the five additional themes were 4. Resources, 5. Regime, 6. Punishments and Rewards, 7. Inclusion and 8. Future Orientation. The findings are presented in relation to the existing literature regarding adolescent development and climate within secure settings.

Discussion: The analysis provided a greater understanding of the factors that influence climate within secure settings as perceived by children. The study has provided further support for the existing international literature around the factors characterising open and closed climates within secure settings accommodating children. The development of a child specific conceptual framework of climate was discussed and the Child Conceptual Framework of Climate (CCFC) proposed. Furthermore, the study's findings offer practitioners and policy makers new insights into the development of positive climates within secure settings accommodating children. Further research is however required to explore the relevance of the identified factors to other secure settings accommodating children and the staff that work there.

3.2 Introduction

The concept of climate has been and continues to be difficult to define. This appears to be due to differing terminology, for example "environment", "atmosphere", concepts of climate being found in several disciplines of psychology and differing opinions as to what characterises climate (Day, Casey & Vess, 2012). Climate was originally defined as the "personality" of the environment (Moos & Houts, 1968) with subsequent definitions being more specific; "a set of organisational properties or conditions that are perceived by its members and are assumed to exert a major influence on behaviour" (Wright, 1985, p. 258). The discussion of how to define climate within secure settings is still ongoing and currently there is no agreed definition. Whilst the criminal justice system in England and Wales and its stakeholders recognise the developmental differences and, therefore differing needs of children and adults, existing definitions of climate do not. Given the differences between adults and children, such as their brain development and the presence of key social agents within their lives, there may be important differences between the way these two groups view climate. Therefore, there is a need to look at the relevance of existing definitions to secure settings accommodating children. Whilst definitions of climate are varied, how climate has been conceptualised can be identified by looking at the content and structure of existing measures available for and currently used to assess perceptions of climate within secure settings accommodating children. However, in addition to the reliance on definitions of climate within secure settings accommodating adults there also appears to be a reliance on measures developed with and for use with adults.

When developing a new measure, the first stage is to create items that accurately assess the concept being explored with the goal of demonstrating Content Validity. Content Validity is the extent to which the items within a measure fairly represent the entire proposed concept to be measured (Salkind, 2010). The development of items can be done using either an inductive or deductive approach. An inductive approach involves the generation of items from which a measure's scales are then derived. This approach is usually used when exploring a concept where little theory exists, and its advantage is its use when generating items to measure an abstract concept. It can however be difficult to develop items that are conceptually consistent without a conceptual framework or definition (Hinkin, 1998; Hinkin, Tracey & Enz, 1997). The Essen Climate Evaluation Schema (EssenCES; Schalast & Tonkin, 2016a), used currently within evaluation models of new initiatives being implemented within YCS, was developed using an inductive approach. Specifically, this was done through the initial drafting of a list of 15 items thought to

characterise aspects of the work environment. Initial statistical analysis identified three aspects of climate and subsequent testing modified and extended the items (Schalast, 2016). The structure of the EssenCES is described as having "no complex theoretical background" (Schalast, 2016, p. 6) but has instead relied on face validity. The EssenCES was subsequently modified for use in prison settings. From the information that is available the modifications appear to have focused upon wording of questions to reflect the custodial environment and the titles of two aspects of climate (Schalast & Tonkin, 2016b).

In contrast, a deductive approach requires an understanding of the concept being explored through review of relevant theory and literature from which items are then generated (Hinkin, 1998; Hinkin, Tracey & Enz, 1997). The advantage of this approach is that when properly conducted the content validity of the final scales can be assured. It is however time consuming and requires knowledge of the concept being explored. The development of the Ward Atmosphere Scale (WAS; Moos, 1974, 1989; Moos & Houts, 1968) and subsequently developed Correctional Institutions Environment Scale (CIES, Moos, 1987), Community Oriented Programmes Environment Scale (COPES; Moos, 2009) and the Measuring Quality of Prisoners Lives (MQPL; Liebling & Arnold, 2002, 2004), utilised this approach. The WAS was developed using several sources of information including behavioural observations, the College Characteristics Index (CCI; Stern, 1963), academic and popular books including Therapeutic Community (Jones, 1953) and One Flew over the Cuckoo's Nest (Kesey, 1962) and finally staff and patient interviews (Moos, 1974, 1989; Moos & Houts, 1968). The MQPL (Liebling & Arnold, 2002, 2004), used extensively with Her Majesty's Prison and Probation Service (HMPPS), was developed utilising Appreciative Inquiry to survey service users accommodated in five UK prisons. Approaches to the item development of other popular measures, such as the Prison Group Climate Index (PGCI; van der Helm, Klapwijk, Stams & van der Laan, 2009) are inaccessible.

Both inductive and deductive approaches have been utilised in the development of measures of climate. For those measures that were developed using a deductive approach the generation of conceptual frameworks was completed in the initial stages of these measures' development and how the framework was developed can be understood and positively these are evidence based. Despite this, the development of these frameworks was generated from adult populations. Furthermore, given the age of some measures of climate, such as the WAS and Prison Social Climate Scale (PSCS; Saylor, 1984), and that climate is likely to be something that changes in nature over time as societal values and

norms change, any conceptual work on these measures is likely to be outdated and in need of updating. This calls into question the validity of applying these frameworks to children as the frameworks may not identify issues relevant to this population currently. The development of measures of climate is discussed in section 1.4.1 and the evaluation of measures in section 2.2.1.

Current Study

Existing theoretical and conceptual frameworks of climate have been developed from adult populations. This creates difficulties for practitioners to evaluate the appropriateness of utilising existing measures with children. Current research is therefore needed to understand and develop the evidence base regarding conceptual frameworks of climate within secure settings accommodating children. This will aid practitioners to identify and utilise appropriate measures as part of evaluations, which in turn may inform the commissioning of services (Tonkin, 2016). The aim of this research was to explore what factors influence climate within secure settings, specifically public sector HMYOIs, utilising the perspectives of children residing there.

3.3 Method

3.3.1 Setting

Of the 800 children accommodated within YCS, around 630 males are located within HMYOIs (YCS, 2019b). Data was collected in the four public-sector HMYOIs.

HMYOI Cookham Wood, in Rochester, Kent, provides accommodation for up to 188 remanded and sentenced male children. In 2007-2008 the establishment was re-rolled from accommodating women to accommodating children. It now receives children from across southern England. HMYOI Cookham Wood's accommodation is relatively new having been rebuilt in 2014 (HMIP, 2018a).

HMYOI Feltham A, in West London, provides accommodation for up to 120 remanded and sentenced male children. It is jointly managed with Feltham B that accommodates young adults aged 18-21. The existing building was opened in 1988 as a remand centre and the current establishment (Feltham A and B) was formed following an amalgamation of Ashford Remand Centre and Feltham Borstal in 1991/1992 (HMIP, 2019a). On the 22nd of July 2019, following its announced inspection, the Chief Inspector of Prisons invoked the Urgent Notification (UN)[10] process for HMYOI Feltham A (Clarke, 2019).

HMYOI Wetherby, in West Yorkshire, the largest HMYOI provides accommodation for up to 336 remanded and sentenced male children. HMYOI Wetherby was previously a naval base that became a borstal in 1958 (HMIP, 2019b). In 2008 HMYOI Wetherby opened Keppel Unit, a residential unit within the wider establishment. Keppel Unit is a national resource that looks after some of the most vulnerable children within HMYOIs (HMIP, 2015).

[10] "During the inspection of prisons, young offender institutions and secure training centres (the latter with the agreement of Ofsted), HM Chief Inspector of Prisons (HMCIP) may identify significant concerns with regard to the treatment and conditions of those detained. In this eventuality HMCIP will write to the Secretary of State within seven calendar days of the end of the inspection, providing notification of the significant concerns and the reasons for those concerns. The notification will summarise the judgements and identify issues that require improvement. As part of the inspection process the governor of the institution will be briefed concerning our intent. The Secretary of State commits to respond publicly to the concerns raised within 28 calendar days. HMCIP will publish an urgent notification letter to the Secretary of State and will place this information in the public domain" (HMIP, n.d).

Finally, HMYOI Werrington, in Stoke-on-Trent, the smallest of the establishments, provides accommodation for up to 118 remanded and sentenced male children. In 1896 the establishment opened as an industrial school. In 1957 it opened as a senior detention centre, in 1985 converted to a youth custody centre and in 1988 became dedicated to accommodating children aged 15-18 (HMIP, 2019c).

3.3.2 Participants

Participants were 11 male children aged between 16 and 18 from four public sector HMYOIs within England. The main inclusion criteria were that participants were aged 15-18, English speaking and were able to understand the contents of the Information and Consent Form. Girls within YCS are only accommodated within Secure Training Centres (STCs) and Local Authority Secure Children's Home's (LASCHs) and were not included within the current study.

The sample was selected using a selective sampling procedure to ensure that a wide range of characteristics were captured to represent the population of HMYOIs including age, time within current YOI, previous location within YCS and location within the YOI, for example a mainstream residential unit or a discrete landing or unit. Participant characteristics are recorded in Table 1.

Table 1

Participant Characteristics

	Characteristics	Number (N=11)
Age	16	2
	17	7
	18	2
Ethnicity	Asian/Asian British Pakistani	2
	Asian/Asian British Bangladeshi	1
	Black/Black British African	1
	Any other Black background	1
	White British	6
Legal Status	Sentenced	11
Time within current YOI	0-6 months	2
	7-12 months	3

	13-18 months	3
	18 months – 2 years	0
	2 years+	3
Location within YOI	Mainstream Residential Unit	7
	Small/Specialist Unit	4
Previous placements	First time in custody	4
	Previous placement in a LASCH	2
	Previous placement in an STC	6
	Previous placement in another YOI	4

3.3.3 Materials

The materials used were:

- Information and Consent Form (Appendix 8)
- Interview schedule (Appendix 9)

Whilst a preliminary interview schedule was developed, the interview was largely unstructured with participants allowed to discuss any aspects of climate. Six open questions were developed to guide the interview and obtain from participants their views on climate. The researcher intervened with prompts to probe for further information or if aspects of climate were not identified and discussed by the participant. Three prompt questions were also included in the preliminary interview schedule that were based around the factor structure of the EssenCES (Schalast &Tonkin, 2016a). This was to ensure prompt questions were grounded in existing and recent evidence. The interview was concluded when the participant was happy that they had discussed all aspects of climate relevant to them. To close the interview participants were asked to comment on their experience of the interview, whether this had been a positive or negative experience.

3.3.4 Procedure

Participation was voluntary. Participants were recruited between May and September 2019. Participants were identified through discussion with Psychology Services staff working within each of the establishments and approached by either a member of

Psychology Services and/or the researcher to explain the purpose of the research and the role of the researcher. The researcher had not previously had contact with any of the participants and given their role was unlikely to work therapeutically with them in the future. Informed consent to participate was ensured throughout by providing a participant information sheet/consent form that presented information about the study, the purpose of the research, what taking part would involve, who would have access to the data and how it would be stored. It was ensured that participants understood the contents of the information sheet/consent form. If participants wanted to partake, they were asked to provide written consent before being interviewed. All participants signed the consent form. A signed copy of the consent form was given to the participant and a second copy was placed in a secure research file. Participants were informed they could withdraw from the study and were provided with instructions on how to contact the researcher. A specified date was provided, and it was explained that should participants contact the researcher after this date their data could not be withdrawn. No participants withdrew consent. It was not intended that taking part would be distressing to participants. However, sources of support were identified should they require them both within the information sheet/consent form, of which they were provided a copy at the end of the interview, and during discussion with participants at the end of the interview.

Participants were fully informed about the limits of confidentiality. They were aware that although quotes would be used in the write-up of the research, all identifying information about themselves (such as names and places) would be removed from the transcripts and write up. Participants were also informed that should information be shared regarding risk of harm to themselves, others or the establishment the information would be shared with the appropriate services.

Interviews were conducted in identified interview rooms. Four interviews were attended by a member of Psychology Services based within the establishment due to operational requirements. All four participants agreed to this. At least 5-10 minutes of general conversation was conducted at the start of each interview to enable the development of rapport with the researcher. All interviews were audio recorded and subsequently transcribed verbatim.

3.3.5 Ethical Considerations

The researcher was a Chartered and Registered Forensic Psychologist employed within HMPPS YCS Public Sector. The study was designed in accordance with the British Psychological Society's (BPS) Ethical Code of Conduct (2018) and the Code of Human Research Ethics (2014). Ethical approval was obtained from the National Offender Management Service (NOMS) National Research Committee (NRC) on the 28th March 2019 (Appendix 10), and Nottingham Trent University College Research Ethics Committee on the 8th May 2019 (Appendix 11).

The nature and procedure of the research was explained to each participant. Participants were over the age of 16 and able to provide informed consent (BPS, 2018). Confidentiality boundaries were established whereby indication of risk of harm to self, others or security would result in a breach. Participants were informed of their right to withdraw without detriment. Data is protected in accordance with legislation and local Information Assurance procedures (HMPPS, 2018c).

Whilst potential participants were identified by members of Psychology Services based within the establishment, to ensure that participants did not feel obliged to take part, it was highlighted within both the information sheet/consent form and verbally that they were under no obligation to do so. Furthermore, it was communicated whether or not they decided to participate, it would not affect their Incentives and Earned Privileges (IEP) level or progression through their sentence. A signed copy of the consent form was not stored in Psychology Services folders where colleagues could access them; instead consent forms were placed in a secure research file and stored away from the YOI. The researcher transcribed all the interviews, and whilst the researcher works within YCS, they had not assessed or worked therapeutically with any of the participants.

3.3.6 Analysis

The method chosen for research depends on what is trying to be discovered (Silverman, 2013) As the aim of the research was to explore the concept of climate with children accommodated in HMYOIs a qualitative method was considered the most appropriate method to achieve this. This study therefore utilised Thematic Analysis (TA). TA is a method to identify, analyse and report themes within data. TA is identified as having several strengths. Firstly, it is recognised as being a flexible approach; data can be focused on in different ways and as such suits a range of research topics and questions. Secondly, it is accessible to a range of researcher experiences. It has been identified as a relatively easy

approach to both learn and apply and finally the results are accessible to a wide audience. Despite this TA is not without its limitations. Firstly, TA is considered, by some, to lack substance compared to other qualitative approaches. It is described as having limited interpretive power and there is a lack of specific guidance for more interpretative analysis. Furthermore, the voice of the participants can get lost, it cannot identify continuity and/or contradictions due to the focus on patterns across data sets and finally it cannot make claims regarding the effects of language unlike other qualitative approaches (Braun & Clarke, 2012, 2013).

The six stages of analysis outlined by Braun and Clarke (2006, 2012) were employed. Interviews were transcribed in full by typing out the dialogue verbatim with some elements of the Jefferson-style transcription (Jefferson, 2004). The language, grammar and words of participants were not modified. All transcripts were anonymised, with individual participants referred to as Participant One, Two etc, with personal identifiers removed (stage 1). The researcher then generated initial codes to identify and label features of the data relevant to the research question (stage 2). An inductive approach to coding was employed; identified themes were linked to the data itself and had little relationship to the questions asked by the researcher. Furthermore, the themes were not driven by the theoretical interest of the researcher and thus were data driven (Braun & Clarke, 2006). This approach ensures that the findings reflect what is important to children accommodated within HMYOIs. Several coding techniques were applied including Descriptive, In-Vivo, Emotion and Versus. Descriptive coding summarises, using a word or short phrase, the topic of a section of data. In-Vivo coding identifies the language used by participants as a code. Emotion coding identifies emotions identified or recalled by the participant or inferred by the researcher about the participant and Versus coding enables the identification of contrasting terms (Saldaña, 2016). This was then followed by searching for and identifying potential themes (stage 3). Themes represent something of importance within the data; a pattern of response or meaning within the data. Based on the aim of the research the potential themes were identified by asking the questions “what affects climate; what would need to change in order to change climate” as opposed to “what impact does climate have”. Having identified potential themes these were then reviewed in relation to both the coded data extracts and whole data set (stage 4) and defined and named (stage 5). As with all qualitative data there could be alternative ways of interpreting the data, for example creating a further overarching theme from the additional five themes, however the researcher believes the current themes are the most fitting way to

reflect the views expressed within interview by the participants. This analysis is included in the Results section of this report (stage 6).

3.3.7 Reflexivity

Reflexivity is the process of critically reflecting on the knowledge produced through research and the role the researcher plays in the production of that knowledge (Braun & Clarke, 2013). Reflexivity is one way qualitative researchers can ensure the quality of research and is the way in which trustworthiness is determined (Dodgson, 2019). As a Chartered and Registered Forensic Psychologist, the researcher brought to this research a breadth of experience working within a range of HMPPS settings accommodating a range of service users. The researcher is currently employed within YCS Psychology Services; works across all four public-sector HMYOIs and whilst undertaking this professional doctorate was promoted to hold a position in both the Senior Management Team of two of the four HMYOIs and within YCS Psychology Services. It is acknowledged that the researchers' forensic knowledge, experience of working within the research settings and organisation and finally assumptions as a research-practitioner will have influenced the findings of this study.

When developing the interview schedule, open questions were utilised to ensure participants spoke freely about what they thought was important. Furthermore, prompt questions were based on existing evidence; the domains of the EssenCES (Schalast & Tonkin, 2016a). To aid the researcher to ensure they stayed neutral during the interviews they did not have any previous relationships with or existing knowledge of the participants, for example their custodial experience. The researcher made certain not to offer their own opinions. Finally, to ensure the researcher removed their biases from the process of analyses and stayed true to the data, letting themes emerge, they utilised supervision. Supervision focused on the discussion of theme content and labels with a researcher who had no prior experience of HMYOIs.

Epistemology is "a way of understanding and explaining how we know what we know" (Crotty, 2003, p. 3). TA has been identified as being compatible with both an essentialist/realist epistemology and, on the opposite end of the spectrum, a constructionist/relativist epistemology. Furthermore, TA is compatible with contextualist/critical realist epistemology, sitting between the two poles. Analysis therefore reflects those meanings (Braun & Clarke, 2006). After surveying the different ontological and epistemological perspectives, this study used a contextualist/critical realist

epistemology. This position acknowledges the way individuals make meaning of their experience and in turn the ways the social context impacts upon those meanings (Braun & Clarke, 2006). This study aims to gain knowledge of what is going on in the world but acknowledges that the data gathered may not provide direct access to the reality. In this study, interviews were conducted with children residing in secure settings, specifically HMYOIs. The interview data reflects the participants perspective and the analysis and findings are a result of the researchers' interpretation influenced by their knowledge, experience and understanding.

3.4 Results and Discussion

3.4.1 General Comments

Comments from all participants about the experience of taking part in the interviews were positive. None of the interviews needed to be paused or stopped. Furthermore, no participants asked for or were referred to support following interview. Only one participant declined the invitation to take part in an interview the reason for which was unclear.

Individual interviews ranged from around 20 to 45 minutes in length. Most interviews lasted around 35 minutes. The quality of data obtained from the interviews varied and reflected the differing abilities of participants to discuss climate. Some participants spoke confidently and fluently whereas some participants seemed unable to talk at length and provided limited responses to the questions posed to them.

In every interview that was conducted, participants identified and discussed a variety of factors that contribute to climate within HMYOIs. Whilst the included extracts do not make the link between the factors and climate explicitly, the factors that have emerged were in response to direct questions regarding climate and what influences this. Furthermore, to ensure that participants understood what was meant by the concept of climate, the researcher began the interview by discussing with participants what had come to mind when the concept was introduced to them.

3.4.2 Factors Influencing Climate

Factors influencing climate have been organised into overarching themes, themes and subthemes. Overarching themes organise and structure TA by summarising the idea of several themes. Themes capture a common pattern occurring across a dataset that centre around one organising concept whereas a subtheme captures a specific aspect of a theme (Braun & Clarke, 2013).

Three overarching themes with eight themes and a further five themes were identified during the TA and are detailed below in Table 2. These emerged in response to direct questions regarding climate and what influences this. Each are discussed in turn. Themes and subthemes are supported by verbatim extracts.

Table 2

Overarching Themes/Themes of the TA

Overarching Themes	Themes
1. Staff	1A. Staff Qualities
	1B. Staff Approaches
2. Violence and Safety	2A. Use of Violence
	2B. Perceptions of Safety
	2C. Responses to Conflict
3. Relationships	3A. External Relationships
	3B. Relationships between Children
	3C. Relationships between Children and Staff
	4. Resources
	5. Regime
	6. Punishments and Rewards
	7. Inclusion
	8. Future Orientation

Overarching Theme 1: Staff

The first overarching theme seen as most important to all participants (N=11) when discussing the influences on their thoughts, emotions and behaviour and subsequently climate within public sector HMYOIs, was the staff working there. Two themes were identified within the analysis (see Table 3).

Table 3

Staff Qualities

Overarching Theme	Theme	Subtheme
1. Staff	1A. Staff Qualities	I. Confidence II. Supportiveness III. Trustworthiness IV. Judgment V. Caring VI. Professionalism VII. Antagonistic

	1B. Staff Approaches	I. Effective Communication Style II. Understanding of Working with Children III. Follow Processes Correctly

Theme 1A: Staff Qualities

The first theme refers to qualities staff either possess or children felt they should possess. Several qualities were identified. The first subtheme was the quality of confidence; staff having confidence that is grounded in the relationships they have with children that results in them not fearing the children they work with. Participant Four discussed his relationships with staff within his current YOI. He discussed his history of using violence within HMYOIs and how when staff hear this, they believe he will assault them. In contrast however he also reported there being some staff who will unlock his door and enter his room despite being told not to. He described them as "not scared" and "confident" that he will not perpetrate violence against them.

Extract One

> *Yeah…so it's like it's like number one they're not scared of me and number one they're confident enough that our relationship is…that positive that I'm not going to assault them.*

In contrast, the participants reported that staff that seem to fear the children and take things personally are lacking in confidence.

The second subtheme was the quality support; participants discussed staff being supportive of children. Supportive staff were described as helpful, encouraging and work 'with' children as opposed to against them. Participant Four discussed that whilst his use of violence causes heightened emotions amongst staff, some still take the time to seek to understand why he has behaved negatively and to check on his wellbeing.

Extract Two

> *"Yeah cos obviously if I assault a staff member everyone's pissed off, chatting shit but then there's some of them that'll come chat to me when I'm down the seg ask me why that happened, how am I feeling [overlap I: ok] tell just then there's some of*

> *them that come to me in my room after I've had a fight or something and they talk to me about it [overlap I: ok] and that".*

In contrast those staff who do not help children were identified as unsupportive.

The third subtheme was the quality trustworthiness. Participants discussed the importance of children being able to believe what staff are telling them. Participant Six discussed how he wanted staff to be "straight" with him and to tell him from the start if he is not going to get something.

Extract Three

> *"Like people not tryna like pussyfoot around me and that…know what I mean I want people to be straight with me and that if if if I'm not getting something I wanna be shown I'm not getting something whereas"*

The use of the word "pussyfoot" is notable implying Participant Six's perception of staff's caution and wariness in being open and direct with him. In contrast, staff who believed they could manipulate, or did indeed manipulate children, were considered untrustworthy. Participant Four discussed informing other children of their "right" to complain and ensuring they submit their written complaint themselves as opposed to trusting staff to do this on their behalf.

Extract Four

> *"Like that's this is what I'm sayin this is why I don't like staff to brainwash kids I tell kids listen don't like it write a complaint form and don't give it to a staff member you are you are you have a right to write a complaint form and you have a right to post it in the box yourself so you know it's there don't get brainwashed cos…you know what they've brainwashed me in the past and when I look back at it I think to myself hold on they was totally out of order what they done"*

The use of the word "brainwash" is interesting as it is implying staff are using the trust children have in them to make children believe what staff want them to believe. Participant Four believes that staff have previously done this to him describing this as unacceptable.

The fourth subtheme was judgment, specifically, staff being non-judgmental of children's offending or behaviour within custody. Participant Four described, as a result of his behaviour both in the community and HMYOIs, staff judged that he would be difficult to interact and engage with.

Extract Five

> *P. "By assaulting staff members people think that I don't like them but I do like…when someone reads my file and that they read my history about all my assaults I've done in prison everything I've done while I've been in prison and outside like they think to myself like…interacting with him is going to be very difficult but when they do interact with me eventually they feel to myself like…you're actually an alright kid like someone said to me when I've read your file and I've read you've assaulted this you've done this you've done that I think to myself you're going to be very pretty much hard work to work with but once I've started working with you you're actually an alright kid you're not you're not how people say you are*
>
> *I. Ok*
>
> *P. Like that's why I tell them like don't judge a book by its cover…that's a true statement really you don't"*

These judgements have been challenged once staff have worked with him. Participant Four uses the metaphorical phrase of "don't judge a book by its cover" to deliver a key message to staff and within the interview.

The fifth subtheme was the quality of caring, specifically staff demonstrating care towards children. Participants described staff demonstrating care by spending time with them, being interested in what they are doing and not giving up on them. Participant Four highlighted the value he and other children place of staff going "that extra mile". Interestingly he reported that staff do not recognise the value of this.

Extract Six

> *"Yeah definitely. Some people like some officers especially they don't understand that extra mile…goes a long way in our heads [overlap I: hmm] it does really"*

Participant Three compared the level of care shown by staff working in STCs with staff working in HMYOIs. He described staff in STCs as more caring and reported his perception of staff in his HMYOI was that "they just don't give a toss".

Extract Seven

"P. Cos…like the whole…dynamics between staff and YPs in S in [redacted] and here is completely different…

I. How so

P. Like personally I just feel the officers in [redacted]…like they cared [overlap I: ok] then when I came here…I feel like they just don't give a toss

I. Is that is that all of them or is that kind of

P. That's how I feel [overlap I: overall] that's how I feel"

The sixth subtheme was the quality of professionalism. Participants described the importance of staff achieving a balance between having authority and power over children whilst ensuring this is not abused. Furthermore, they described the need for staff to seek to ensure that children have what they are entitled to. In contrast, staff who do not achieve this balance were viewed as exploiting the authority and power they have and were not considered as having boundaries. Participant Three described the change children notice in new officers. Upon arrival Participant Three described staff as demonstrating positive qualities however as time progresses, they change to demonstrate negative qualities such as exploiting their position.

Extract Eight

"P. Yeah…and I think like let me go back as well to like negative…climate when new officers come in like I've I've witnessed this as well all around the jail YP's they'll they'll lose trust in officers because new officers will come in then in their first couple shifts or first week they'll be so nice they'll be kind then once they they found their their sea legs…they're they're completely different person

I. Right how so

P. I think it's that power trip…they'll be…blunt…rude…everything will just change…"

Firstly, of note, is the use of the phrase "sea legs" indicating that staff change once they have adjusted to working in the custodial environment. Secondly is the use of the phrase "power trip" indicating staff are overexerting their authority. Participant Two discussed the difference between new and experienced staff working within HMYOIs. New staff with no experience of working within a custodial environment were identified as looking down on the children, which can have negative consequences including violence being perpetrated

against staff. In contrast staff who have worked in other custodial settings have the skills to work with children and this results in positive relationships being established quickly.

Extract Nine

> *"Like new staff there's some new staff that think I'm the boss I can do whatever I want [I overlap: right] you listen to me but then there's some new staff that have come from different jails and but they're just new to this prison [I overlap: right] but then they know how to deal with young people young offenders and even though they're new you can still build a relationship with them quickly but then there's some that just want to be a bit too high too up there [I overlap: ok] which end up getting…assaulted or just bad word goes around"*

These characteristics are unsurprising and consistent with existing literature. Previous research has identified characteristics of effective staff include warmth, tolerance and flexibility and appropriate use of authority without abuse of power. Furthermore, effective staff model prosocial values and beliefs such as honestly, enthusiasm to engage those they are working with in the process of change and challenge antisocial attitudes and behaviour (Jenkins, 1999, as cited in McLaren, 2000).

The final subtheme was the characteristic of being antagonistic towards children. This was characterised as staff being confrontational towards children, being difficult, shouting and ignoring children when they are in their rooms. Participant Seven described a situation where a child he knew asked a member of staff to stop speaking to him in a manner he did not like. He reported that the child had done this as he liked the member of staff and, in another situation, he would have perpetrated violence against them. The member of staff responded to this by getting "a bit in his face".

Extract 10

> *"But like I've seen it happen before he told one of the officers you like [?] if he normally says something to you he will just normally hit one of them but he said to her cos he actually liked her don't don't speak to me like that but she just got a bit in his face and then he just switched innit"*

Participant Six discussed how he categorised staff as good or bad officers. He described bad officers as "dickhead officers" who like to "torment" him and the other children.

Theme 1B: Staff Approaches

This theme refers to the to the way in which staff approach working with children within HMYOIs. The first subtheme was staff's ability to communicate effectively with children. Effective communication was characterised by using a motivational style, specifically praising children, listening to what they have to say, taking time to communicate with children, speaking in an appropriate tone and manner, being able to joke with children and the ability to manage expectations. Participant Eleven compared the communication style of staff working with HMYOIs to staff working within STCs. He described HMYOI staff speaking "properly in a good way" whereas staff in STCs "just speak to you".

Extract 11

> *"I think like they're more like they speak to you properly in a good way and they help you like [?] professionals as well like in secure at that they just speak to you and like just leave you and not really bother with you and that"*

In contrast ineffective communication was identified as being characterised by staff not talking to children, being inconsistent in their interactions, communicating by shouting and not listening to children. Participant Two described differences in staff's jokes with children. He stated that he is unable to get along with staff who say inappropriate things and/or make inappropriate jokes. He can however get along with those staff who make appropriate jokes. He differentiates between the two by their delivery and facial expressions.

Extract 12

> *"You can't get along with staff like that [overlap I: hmm] but then the staff that do it as a joke them staff you can get along with they will say it as a joke like they'll you can the way they say it compared to the other ones you can tell by their facial expressions like facial expressions they're joking like they'll carry on joking around with you but then there's the ones that will actually just say it like do you wanna go back in your cell"*

The examples of inappropriate jokes Participant Two provided such as "whose got the keys" convey a power imbalance in their relationship, with the staff member holding the power.

The second subtheme was staff recognising that they are working with children. Participants discussed the importance of staff recognising and understanding that they are working with children as opposed to adults; specifically, that staff have a legal responsibility towards children within HMYOIs and furthermore that the children are in their care. Participant One emphasised that as those accommodated within HMYOIs are under 18 staff have a duty of care to children.

Extract 13

> *"Obviously in a YOI Govs are different cos they cos you're under 18 they have to you're in their care you know what I'm saying [overlap I: uh-hu definitely] they have to protect you not matter what"*

Participant Two discussed working within HMYOIs as being "not just work" emphasising that staff are responsible for "taking care of these one hundred and eighty something people". In contrast staff who fail to recognise individual differences and do not understand how children feel were identified as not understanding they are working with children.

The final subtheme was staff following processes correctly. Participants discussed the importance of staff following processes correctly and discussed the necessity of staff appropriately actioning the requests made by children. Participant Ten provided the example of when he requests staff to, for example, call other professionals, they will do so. In contrast, staff who cause delays in processes such as access to property and do not explain to children why delays have occurred were identified as not following processes correctly. Participant One expressed his frustration at the length of time it takes for him to receive his property from reception. He described being provided with no explanation for the delays, reporting it was taking three months to receive a parcel. He questioned the explanation of reception staff "work very hard" stating "you're telling me other people aint working hard". He appeared confused regarding the time scales associated with receiving a package and by staff explanations of the delays.

Extract 14

> *"P. Yeah another thing is parcels you see the people at reception that gives another negative vibe as well [overlap I: yeah] it's your possession your possessions are being processed alright cool I understand that [?] its process but that fact they're making it so long [I overlap: ok] to get our parcels yeah it's another it's another long thing*

I. When that's happening do you get like an explanation for what's [P overlap: no] going on

P. No no all the only explanation is that apparently the reception staff work very hard what does that mean [overlap I: ok] what does that mean so… who… so you're telling me other people aint working hard or is it just the reception people that's working hard [I overlap: ok] does that make any sense if you're working hard all you have to do is come to the landing process the parcels and just give the parcels to the YPs that's all that takes you don't need 3 months to deliver 1 parcel"

Children within YCS have been described as presenting with "high risk, high harm and high vulnerability" (Taylor et al., 2018, p. 194) and the principles of the SECURE STAIRS framework include the recognition of staff as being pivotal to the development of environmental and relational conditions (Taylor et al., 2018). As such emphasis has been placed on the staff working with this group having several skills including education, knowledge and skills that their specific role requires (van der Helm, Boekee, Stams & van der Laan, 2011). Similar to previous research (van der Helm, Klapwijk, Stams & Laan, 2009) findings from the current study identified a positive climate being characterised by staff possessing several attributes including confidence, a lack of fear, being caring, supportive and non-judgemental, Furthermore, they approach their role with an understanding that they are working with children who are distinct from adults, communicate effectively with a motivational style, follow processes correctly and do not abuse the power they have, whilst balancing this with their position of authority. In contrast, a negative climate was characterised by staff possessing several attributes including a lack of confidence, fearing children, lacking care, who are unsupportive and judgemental. Furthermore, they are antagonistic and confrontational towards children. They approach their role without an understanding of or care they are working with children, communicate ineffectively, do not follow processes correctly and abuse their power and position of authority.

Overarching Theme 2: Violence and Safety

The second overarching theme identified was Violence and Safety. Violence and Safety was discussed by 10 participants and refers to the violence observed within HMYOIs and how children both define and perceive their safety. Three themes were identified (see Table 4).

Table 4

Violence and Safety

Overarching Theme	Themes
2. Violence and Safety	2A. Use of Violence 2B. Perceptions of Safety 2C. Responses to Conflict

Theme 2A: Use of Violence

The first theme discussed by several participants was their own and others use of violence. Participants discussed the normalisation of violence, its widespread use and therefore the expectation of violence occurring within HMYOIs that includes the presence and use of weapons.

Participant Eight described his own perpetration of violence; he described knowing violence against him is going to occur and therefore he initiates it "quickly" and indiscriminately.

Extract 15

"P. No it's not like that I will step out and assault the first person I see cos I know it's going to happen anyway so I will start it quick I will start it

I. Ok so you'll start it [P overlap: ?] to finish

P. I know it's going to happen so I might as well quickly start it yeah"

It could be construed from this that Participant Eight is in a state of hypervigilance that results in his use of violence despite the lack of a specific threat. Hypervigilance towards potential threats has been identified as resulting in structural changes to children's brain that in turn impact upon attention, memory and learning capacity (Ford, 2005). In contrast Participant Five identified an explicit threat of violence, specifically the presence and use of weapons.

Extract 16

"P. …For me feeling safe would probably be like umm obviously violence is like a big part innit you get me so if there's loads of violence around and your mixing with all these people that are violent then you're not gonna feel too safe you get me

I. Yeah

P. Especially with people swinging plugs around and all this [?] shit"

He expressed feeling unsafe due to the presence of weapons.

The differences between levels of violence in HMYOIs and STCs was discussed by Participant Three. He highlighted there being little violence, specifically fights between children, within STCs due to being "like a community".

Extract 17

> *"The atmosphere and…the whole environment like in STC……like there's… a huge difference…over there there's hardly any fights [overlap I: uh-hu] cos they treat it like a small community…and like everybody's just close together…and even if there is a fight then right after that they make sure that…the mediation and conflict resolution is done properly"*

The use of the word "community" implies a closeness and caring feeling. As the levels of violence differ between settings it could be inferred that the climate also differs.

Several participants discussed the level of violence outside of custody and within the communities they live. They saw the violence within HMYOIs as being both reflective of the levels of violence outside of custody and continuing external community disputes. Furthermore, they discussed their belief that children are more violent. Participant Three discussed children's involvement in "gang issues" within the community that do not end when entering HMYOIs. He described allegiances between children being a reason for them becoming involved in violence that they would not have otherwise been involved with.

Extract 18

> *"P. Simple……and it could be like say like outside gang issues…like when you come in jail it don't stop…then if someone's got issues with your friend…then out of…some form of loyalty to your friend [overlap I: hm] you'll fight the person that's got issues with your friend"*

Theme 2B: Perceptions of Safety

The second theme related to the overarching theme of Violence and Safety was participants perceptions of their own safety within YOIs and what it means to feel safe. Participants described feeling unsafe within HMYOIs. Participant Eleven articulated how it felt to be safe, describing this as not having to be hypervigilant and being able to behave in a manner that is true to himself.

Extract 19

> *"…Feeling safe is like…knowing that you don't have to look over your back every five minutes or summit and being yourself and not having to be someone else put up a front [overlap I: Yeah] and feeling safe cos at home you should be able to feel safe and come to prison obviously it's not like your home but you're living there so you should feel safe where you live and that and like get away from all your problems and that but obviously difficult in prison it's a bit difficult and that but you should feel safe and that cos obviously like if I'm not feeling safe and that I'd be like always watching my back and paranoid and that [I overlap: Right] [?] you'll mess up your head a bit you know what I mean"*

Participant 11 used "home" as his measure of safety. He highlighted that whilst he does not consider HMYOIs to be his home, it is where he currently lives and therefore he should be able to experience similar levels of safety. His use of the word "should" implied this was not currently happening. Furthermore, he described the impact of feeling unsafe has on his emotional state including feelings of paranoia and in turn his mental health stating "you'll mess up your head".

In contrast to all other participants, Participant Six described himself as feeling safer in custody and compared this with his previous feelings of safety in the community.

Extract 20

> *"P. I don't know I felt more safe in jail than on the out*
>
> *I. Ok*
>
> *P. So in my head jails jails mellowed me out a bit*
>
> *I. Ok why do you say that why do you feel more safe here*
>
> *P. Cos here yeah… I I don't know like I think it's cos…I had I had…serious people out there onto man but in here…like at the end of the day these are all people like my age you know what I mean"*

His feelings of safety within custody appear to be based on being accommodated with other children, people his own age and appeared to imply that those he was involved with in the community were older, more criminally minded and therefore there was more to fear.

Theme 2C: Responses to Conflict

The final theme related to the overarching theme of violence and safety influencing participants thoughts and behaviour and therefore climate within public sector HMYOIs was the strategies in place to respond to children's conflict. Participant One described HMYOIs as unsafe and highlighted strategies used by the establishment to increase levels of safety such as preventing children whom are experiencing conflict with each other from mixing.

Extract 21

> *"In jail it's not safety is only limited let's say [right] safety is limited and I say that why well it depends depends really here ah like it's hard to explain but because because erm like there's keep aparts and that it's it's different for keep aparts because of keep aparts being there it just makes it more safe"*

If children know they are being prevented from mixing with those children they have conflict with, the likelihood of this conflict escalating is reduced and therefore children are likely to feel safer.

Some participants expressed confidence in staff to stop violence. Participant Five described staff, specifically prison officers, getting involved immediately when violence does occur to end it.

Extract 22

> *"Especially with people swinging plugs around and all this [?] shit but if there's no violence and hardly any violence and you know there are officers that are actually...doing their job properly and if there is violence they'll get involved straight away and split it up then…"*

His comment regarding prison officers "doing their job properly" indicated he perceived it to be the role of prison officers to stop violence and that not all officers do this.

Participant Eight discussed how, following violence occurring, an intervention based on the principles of Restorative Justice is delivered with the children involved. Whilst there is no agreed definition of Restorative Justice (Suzuki & Hayes, 2016) it enables those who have been harmed to convey the impact to those responsible, and for those responsible to acknowledge this impact and take steps to put it right (Restorative Justice Council, n.d.). Once a conflict has been resolved children can once again mix with each other again.

Extract 23

> "*But step out create it deal with it have your fight and more time it gets squashed after that cos cos you've just dealt with it [overlap I: yeah] conflict res are they mediate you you can mix again"*

Whilst Participant Eight focused on the immediate benefits of engaging in Restorative Justice, it has also been shown to enable both social and emotional learning through the development of skills to manage relationships and resolve conflict (Morrison, Blood & Thorsborne, 2006).

Safety has been identified as a basic human need (Maslow, 1943) and previous literature identifies safety as a key characteristic of open climates (van der Helm, Boekee, Stams, & Laan, 2011; van der Helm, Beunk, Stams & van der Laan, 2014). A positive climate was identified as having little or no violence. Furthermore, it was identified as being characterised by children consistently feeling safe and children being both aware of and confident in strategies to respond to conflict such as restorative approaches. In contrast, a negative climate was identified as having high levels of violence, which involves the use of weapons and that reflects the violence committed by children in the community. Because of this a negative climate was identified as being characterised by children as feeling unsafe within HMYOIs and being unaware of and/or unconfident in strategies to respond to conflict.

Overarching Theme 3: Relationships

The third overarching theme of Relationships was identified. This theme was discussed by all participants (N=11) and encapsulates children's relationships both within and outside of the YOI and the influence the quality and characteristics of these have on climate. Three themes were identified (see Table 5).

Table 5

Relationships

Overarching Theme	Theme	Subthemes
3. Relationships	3A. External Relationships 3B. Relationships between Children 3C. Relationships between Children and Staff	- Staff Having Time to Develop Relationships with Children

- Relationship Characteristics
- Opportunity for Personal, Dedicated Relationships

Theme 3A: External Relationships

The theme discussed by one participant influencing their emotions and behaviour and therefore climate within HMYOIs was their relationships, specifically relationships external to the YOI. Whilst only discussed by one participant they discussed this at length and consequently it was included within the analysis. Participant Eleven discussed the importance of him maintaining regular contact with his family through the phone and in person and the support he receives from doing so.

Extract 24

"P. er….no I just think like I said like having someone to support you and that having like your family as well but some people can't find support so it could be hard as well so knowing that someone's out there to support you and that and someone that's making an effort [overlap I: ok] to notice your behaviours and everything [overlap I: ok]

I. So kind of not just inside but maybe that knowledge that that's outside as well [overlap P: Yeah] and how does do you kind of get visits and

P. I do get visits yeah

I. Who do you get visits from

P. I get visits from my uncle my grandma my sister as well

I. Ok and do you get to talk to them

P. Yeah

I. How often do you talk to them

P. I speak to them everyday

I. Do you

P. Yeah

I. Ok and how does being able to talk to your family you know and see them as well how does that impact on the climate

P. I think like…if you're seeing people and that your loved ones and that it helps like it helps you like motivates you like be more like polite and wanna get out of this environment and that and try make you think positive about the future and everything so like the environment that you're in if it's bad and that can try make you think positive and that it'll help you change a bit more as well"

Of note is the explanation he provided as to what having this support does for him; motivating him to maintain positive behaviour and focus on the future once having left the YOI. It could be inferred that positive behaviours and attitudes influence climate within HMYOIs.

Theme 3B: Relationships between Children

The second theme regarding relationships discussed by participants was relationships between children within HMYOIs. Participants identified positive relationships between children being characterised as being both supportive and respectful of each other. Being supportive was identified as including helping each other and allowing each other to show vulnerability without being judged. Participant Two described having entered the establishment with three friends from the community and identified them as having helped and supported him during his time within the YOI.

Extract 25

"I. Yeah so how supported have you felt in making that change and and and being the best person you can be

P. Obviously I've come in with three friends innit

I. oh ok

P. and they've helped me quite a lot

I. Have they

P. One of them been shipped but the other two they've helped me through it quite a lot…"

Participant Two also described his experience of attending an intervention and the challenges of engaging in such work with people he did not know. He described himself as

being uncertain at the start but as time went on his relationships with the other children developed. This resulted in him and the other children "helping each other" and sharing the most personal of details, things "you couldn't even tell your family". The use of the word "family" to describe the relationships formed within the group is interesting. This implies a level of closeness, a bond.

Extract 26

> *"…when I went to STAG[11] I was with a couple of people I know [ok] that I'm friends with and there's a couple of people I don't know so you're going into an environment with different people and you don't know what can happen innit [yeah] so the first week was a bit hard innit second week was a bit hard but then you started getting to know each other you started knowing more about each other about your personal problems and then you started helping each other out [yeah] with certain problems and stuff and it all just became like a family thing innit [yeah] so [yeah] doing that you had a lot of support cos now now you've told people you're personal problems that you you couldn't even tell your family so for them people to know them little things about you it's a bit… go like a bit different innit"*

Peer relationships serve an important part of development during adolescence. They provide the platform for establishing a sense of mastery, obtaining social acceptance and testing out new ideas (Naar-King & Suarez, 2011). When the peer group is anti-social, this can manifest as an anti-social identity and behaviour, however prosocial peers can exert a positive influence such as increasing positive behaviours and reduce the risk of later violence (Borum, 2000; Viljoen et al., 2016).

Positive and supportive relationships were not the experience of all participants and as such a negative characteristic of children's relationships was also identified; children being antagonistic towards each other. Participants discussed children taking their frustrations out on each other and arguments occurring between them. Participant Five described how children who do not come out of their room are identified by other children as vulnerable. Furthermore, those considered more vulnerable are considered "an easy target" for bullying and/or violence.

Extract 27

[11] Starving the Anger Gremlin (STAG, Collins-Donnelly, 2012) is an anger management intervention initially designed for use with children in the community and adapted for use within YCS.

> *"could be people that are being selective like…they see someone that's you know can fight that's a violent person they won't pick on them and they see someone that don't come out of their cell that's vulnerable [hmm] they pick on them [right] cos they're an easy target…and then…um…yeah can just be loads of things"*

Several participants described how insulting other children's parents, in particular mothers, was antagonistic and a catalyst for violence. Participant Three highlighted how important his mum is to him and therefore if someone insults her, he will respond to this with violence.

Extract 28

> "*…People talking about other people's mums…like to me like my mums like everything so if someone something about my mum then I'm fighting them*"

He did not appear to have considered alternative, nonviolent responses to his mother being insulted. As a result of negative relationships one participant discussed not seeking to develop relationships with other children. It could be inferred that feeling and/or being isolated from peers would impact on his quality of life and therefore the climate.

Theme 3C: Relationships between Children and Staff

The final theme regarding relationships discussed by participants was relationships between staff who work within public sector HMYOIs and children. Three subthemes were identified within the analysis. The first subtheme was staff having time to develop relationships with children. Participant Four discussed the process of how relationships between staff and children develop emphasising the time that they spend with each other over an extended period. The use of the word "properly" implies a genuineness to the relationships the participant has.

Extract 29

> *" I don't know just it's over time over time you get to cos it's different from knowing someone in here and outside cos they've got to work with us for at least maybe 14 hours a day [overlap I: uh-hu] on their shift so every single day for months and months so you'll get to know them properly instead of the outside you might see them for an hour or two they.."*

Furthermore, the use of the phrase "work with us" implies a collaborative approach to the development of relationships as opposed to staff simply being present.

The second subtheme identified was characteristics of relationships between children and staff that work in public sector HMYOIs. Positive and negative characteristics of these relationships were identified. Three positive characteristics were identified, including staff and children having knowledge and/or understanding of each other, children and staff demonstrating respect to each other and finally relationships that are characterised by trust.

Participant One discussed his experience of receiving the lowest level of rewards and incentives during which, not only did staff provide him with books, they provided him with books that they knew he would be interested in. This demonstrated personal knowledge and an understanding of what would interest him as well as a willingness to engage with his interests.

Extract 30

> *"…when I was on basic as well they were giving me so many books and that [I overlap: ok] you what I say not not the normal books they were giving me the good ones [I overlap: ok] the ones I'll be interested in [overlap I: ok]"*

Respect was frequently referred to by participants as being reciprocal between staff and children and included the way staff communicate with children and treat children with decency. Participant Two discussed how respect is formed.

Extract 31

> *P. I showed you showed respect to someone and now they're showing you the same respect back and that's what it is innit [overlap I: yeah] that's what it is like if you respect someone you expect to get respect back*
>
> *I. When you say respect what does respect mean to you?*
>
> *P. Err its loyal innit like [overlap I: ok] so if you've been nice to someone then you expect someone to be nice back to you if you're not nice with someone then they're not gonna be nice back to you you don't never look at it as in its a one way thing [overlap I: uh-huh] respect is always a two way or three way is always a big thing if you don't have respect for someone then no one's gonna have respect for you if you're just rude with everyone [overlap I: yeah] everyone's gonna be rude with you or you're gonna be someone that… is gonna be left out so you're looked at as someone that's that's nothing do you get me like"*

The use of the word "expect" is interesting, highlighting Participant Two's belief that if respect is shown to staff it should be returned. Furthermore, he did not expect staff to show him respect if he did not provide them with the same courtesy.

Participant Six discussed that whilst he did not place his trust in others there are members of staff that he did trust, highlighting they have achieved this trust through helping and working with him. Despite this, his use of the words "semi trust" implied that he still did not trust the members of staff fully.

Extract 32

> *"Like see yeah…I don't know like in a way its trust yeah like me yeah I'm not very big on trust and that…but there is one or two officers in here that I can semi trust cos…they've like when when I've been down and that when I've been like when I've been in situations and that they help me innit instead of like working against me all the time innit"*

Children's trust appears to be very hard for staff to gain and there appears to be a very delicate balance between trust being gained and lost with the smallest slight resulting in a loss of trust in the member of staff.

A negative characteristic of children and staff relationships was also identified; being antagonistic towards each other. Participant Five discussed how staff would involve themselves in negative interactions between himself and other children and interact negatively with him themselves.

Extract 33

> *"Erm…just…like here it would be like just coming chatting shit to you at your door tryna…like give you verbal's [?] YPs or something. I don't know I [?] the way they disrespect me is like…obviously… if there's another YP down here tryna give me verbal through the door they'll start getting involved start to give me verbal and they'll start shouting at me or just using a different tone of voice with me you get me"*

The final subtheme was identified as children having the opportunity for personal, dedicated relationships with staff. Within public sector HMYOIs each child is allocated an individual member of staff who is their point of contact within the YOI and trained to provide weekly, structured, psychoeducational sessions. Participants discussed the importance of having a relationship with this member of staff. Participant Five described

this as offering the opportunity to "chat" and Participant Three reflected on his experience of having a personal officer when accommodated within an STC. He identified this as providing him with an opportunity to discuss problems and/or issues with a specific member of staff, instead of bottling up what was "bothering" him and "ruminating" upon it.

Extract 34

> *"Cos normally I wouldn't if something was bothering me I wouldn't speak about it and then I would end up ruminating…then that's when things go left…then when you have CuSP[12] if there's something on your mind you speak to them about it then they give you advice get it off your chest"*

A strong therapeutic alliance has been shown to have a significant positive impact on behavioural outcomes for children (Murphy & Hutton, 2018; Shirk & Karver, 2003).

In contrast, Participant Three described officers within his current YOI as "doing nothing" instead taking on the personal officer role for "clout" highlighting the perception that staff received a certain status for undertaking this role. Participant Nine discussed not knowing his personal officer and therefore no relationship had developed. The participant also reported not even knowing the gender of his personal officer.

Extract 35

> *"I. Ok do you um do you have like a personal officer*
>
> *P. Er yeah*
>
> *I. Yeah what's your relationship like with them*
>
> *P. I don't know him*
>
> *I. Oh you don't know him*
>
> *P. Yeah*
>
> *I. Ok is it even a him*
>
> *P. I'm not too sure it says the name next to it says the name on the board like"*

[12] Custody Support Plan

A positive climate was identified as being characterised by children being able to access and maintain their positive relationships outside of HMYOIs. A positive climate was also identified as being characterised by children within the YOI having supportive and respectful relationships with both staff and other children. Furthermore, the relationships between staff and children are characterised by staff making the investment to develop these relationships and having the time to do so, the relationships that they develop being characterised by having knowledge and/or understanding of each other, demonstrate respect towards each other and having trust in each other. Finally, a positive climate was identified as being characterised by the provision of a personal, dedicated, therapeutic relationships with a named officer who values the role they provide to children. This was perhaps unsurprising given the emphasis within the existing literature on the importance of the relationships between staff and children (Levrouw, Roose, van der Helm, Strijbosch & Vandevelde, 2018). In contrast, a negative climate was identified as being characterised by children being unable to access and/or maintain their external relationships and children not having and/or not supported in developing quality, supportive external relationships. The weakening of protective relationships has been found to be a negative effect of custody (Pritikin, 2009 as cited in Levrouw et al., 2018). A negative climate was also identified as being characterised by children's relationships within the HMYOI being unsupportive, disrespectful and/or antagonistic, which may lead to children not wanting to develop relationships. Furthermore, the relationships between staff and children are characterised by staff not being interested in and/or not having the time to develop relationships with children. As a result, children and staff do not know and/or understand each other, disrespect and distrust each other. Finally, a negative climate was characterised by the establishment not providing the opportunity for personal dedicated relationships with staff and/or staff not valuing this role, which in turn influences children's perceptions of its value.

Theme 4: Resources

The theme 'Resources', discussed by seven participants, refers to the basic facilities provided to all children within custody and the physical features found within a YOI. Resources were identified as influencing participants' mood and behaviour and recognised as salient to climate within public sector YOIs. Four subthemes were identified within the analysis (see Table 6).

Table 6

Resources

Theme	Subthemes
4. Resources	I. Food II. Room Facilities III. Security Measures IV. Access to Sleep

The first subtheme was food, including both the quality and quantity of the food served to children within HMYOIs. Participant Five spoke at length about food, describing the quality of the food he currently receives as inadequate.

Extract 36

> *P. The foods rubbish Tuesdays and Thursdays are good [I overlap: ok] chips innit*
>
> *I. I was going to say that was going to be my next question. What what makes Tuesday and Thursdays good*
>
> *P. Tuesday and Thursday's good it's like chips and pizza on a Thursday and then the next Thursday it will be chips and spring rolls and then next Thursday chips and pizza again [I overlap: ok] it goes like that and Tuesdays it's like chips and onion bhajis and curry sauce its good man [I overlap: ok] but um*

As he talked, he went on to describe an element of routine to the food he is provided with and being able to anticipate when he will be provided with food he enjoys; food was clearly important to him. The food he reported enjoying appeared synonymous with that of adolescents and did not appear to have much nutritional value. In a final comment he described the impact poor quality food has on his emotional state, describing himself as "feeling depressed" at the sight of it.

Extract 37

> *P. So when like you get these rubbish meals coming through your door…and it's like um…some new potatoes with black holes all in them and some weird combinations of*

food like new like rice and macaroni and cheese together [I overlap: ok] it's like some weird combinations

I. That's very interesting

P. It makes you feel depressed looking at my blue tray with this [I overlap: ok] [?] on it"

The quality of food and how this compared to the food served in other YCS accommodation was discussed by Participant One. He compared the quality of the food served within the HMYOI he resided in, to the quality of the food within an STC. This was interesting as he had never been accommodated in such a setting, hence he must have been reporting on what he had heard and/or been told when describing the food within the STC as being better quality than what he is currently provided with.

Finally, the quantity of food served within HMYOIs was discussed by Participant Two. He described receiving a greater quantity of food upon moving to a different residential unit within the same HMYOI. This highlighted a lack of consistency in the quantity of food children receive.

Extract 38

"P. At first at first I had nothing innit like [I overlap: right] when I first come here I had nothing I just had my ROTL to look forward to [I overlap: ok] so coming over here I was just a normal enhanced guy I had more time out of my cell errr I had more… just you get me more food and that"

Second was the subtheme room facilities; the facilities boys have in their rooms within HMYOIs, participants perception of the quality of such facilities and differences in facilities between two types of YCS accommodation. Participant Six discussed the showers being cold. It appeared that he viewed himself as having adapted to life within HMYOI, however, despite this the experience of cold showers continues to impact him emotionally; describing this as "angering" him.

Extract 39

"P. even though I'm use to jail now yeah it's like there's certain things that will anger me innit

I. Ok

P. Like hopping in the shower it'll be warm yeah so you think I'm in for it here

I. Yeah

P. Get in and it goes freezing cold and that you know what I mean"

The facilities found in children's rooms within HMYOI and how this compared to the rooms in other YCS accommodation, specifically STCs was discussed by Participant Seven. He described having both a shower and a telephone in his room in the latter. This appeared to be based on his own experiences having been accommodated in an STC prior to HMYOI.

Extract 40

"To be honest I think that's that's you aint even in prison in places like that cos its its…you're more at home there it's nothing like here you're out nearly all day from like half seven in the morning to half nine at night and when you come here it's like totally different…you have a phone shower in your pad".

Of note is the use of the word "home" to describe an STC; this implies more than short term or temporary accommodation.

Third was the subtheme security measures. Security measure refers to the physical features of the YOI that seek to provide control. Within this subtheme participants discussed types of security measures and how security measures can influence how the accommodation is perceived. Participant One provided a vivid account in the third person of what a child may be met with on their arrival into custody within HMYOIs, highlighting not only the presence of others he described as "convicts" but security measures, including locked gates and bars.

Extract 41

"Like obviously… obviously if if if think of it like this… if a person of no criminal like let's just say it's your first time in prison [uh-hu] you're here with all these convicts and don't even know what they're in for probably like mostly like like let's just say for first impression… come in and there there's locked doors there's locked bars and everything [I overlap: it's loud]"

The use of the third person may aid Participant One in separating himself from this experience. The use of the words 'locked' and 'bars' creates the feeling of oppression and authoritarian treatment.

The impact of how security measures can influence the appearance of YCS accommodation was discussed by Participant Nine. He compared the appearance of YOIs to

that of an STC. He described the STC more favourably. This was informed by his previous experience of being accommodated in such settings.

Extract 42

"…It doesn't really look like a prison it just looks like a... camp"

His description of the STC as a "camp" depicts a softer, more holiday like appearance. As the security measures differ between settings it could be inferred that the climate differs.

The final subtheme discussed by one participant influencing climate within HMYOIs was their access to undisturbed sleep and the impact the noise staff and other children create has on this. Whilst only discussed by one participant they discussed this at length and consequently it was included within the analysis. Whilst Participant Eight recognised that staff must complete nightly checks on children, he also highlighted his frustration at being woken up by this process.

Extract 43

"But lately night staff have been pissing you off as well like night staff they keep putting your light on looking but I'm sleeping bruv like they're checkin if you're alright yeah but my block is not up when I go to sleep I take it down to prevent that they can see I'm laid in my bed why have you got to check in with my light on I'm sleeping like"

In contrast to staff, he also discussed how other children purposefully wake each other up by banging on their room doors. He highlighted that whilst this does not occur frequently what remains consistent is the negative impact this has on children's mood at both the time of being awoken but also for the rest of the day. Being awoken in the night can impact on both the quantity and quality of children's sleep.

Extract 44

P. Is this… I don't know like see sometimes yeah people will start banging their doors and you'll wake up to them banging and that that you're in a bad mood already

I. Right

P. You're gonna be in a bad mood all day now

I. Yeah

P. Just things like that will will negative

I. So kind of cos [redacted] can be quite loud sometimes [overlap P: yeah] can't it

P. Before it use to be worse innit now it's alright but p people use to start banging their doors randomly at four o'clock in the morning to wake people up like it's not good is it

A positive climate was identified as being characterised by providing children with both good quality and an appropriate quantity of food, providing them with adequate, well-functioning facilities within their rooms and in which children can achieve good levels of undisturbed sleep. Similarly to van der Helm, Stams and Laan (2011) who described a closed climate as "grim and uninviting" (p. 161), a negative climate was identified as being characterised by providing children with poor quality and inadequate amounts of food, providing them with inadequate, ill-equipped rooms and/or facilities, an environment characterised by visible security measures that result in the perception of hostility and oppression and one in which they are unable to sleep. This theme is in line with the General Strain Theory (GST; Agnew, 2009) that identifies the presence of negative stimuli, such as the physical environment, as a source of 'strain', which in turn is associated with both children's adjustment to and negative behaviour within secure settings (Morris, Carriaga, Diamond, Piquero & Piquero, 2012; Peters & Corrado, 2013).

Theme 5: Regime

The theme 'Regime', discussed by nine participants, refers to the routine within a YOI that determines what activities children will be doing at different points within the day and where in the site they need to attend. The regime they receive was discussed by several participants as contributing to their quality of life and their emotions and therefore climate within public sector HMYOIs. Six subthemes were identified within the analysis (see Table 7).

Table 7

Regime

Theme	Subthemes
5. Regime	I. Access to a Regime
	II. Access to Exercise
	III. Access to Visits
	IV. Access to Education
	V. Access to Free Time
	VI. Provision of Activities

The first subtheme was children being provided with and being able to access a routine of daily activities. Participant Five provided an account of what his day regularly consists of a shower and, on some days dependent on the weather, time outside on the exercise yard equating to around 45 minutes outside of his room. This is a very limited regime resulting in a long time spent in his room alone.

Extract 45

> *"I'm down here now on like some [redacted] unit thing…[overlap I: hmmm] um…and you only get out of your cell sometime most of the time for…like yard and which is half an hour and your shower which is fifteen minutes so forty five minutes out of your cell a day and sometimes you don't even get yard cos the bad weather up here so [ok] the bang ups just horrible innit"*

Of note is the use of the phrase "bang up", this is typical prison slang for time locked in their room. He described this as "horrible". Isolation has been identified as having the potential to cause serious psychological and physical harm to children through the development of or exacerbation of existing symptoms of mental health such as depression. Furthermore, isolation can result in further traumatisation; trauma experienced during childhood can affect the rate of development and result in difficulties with emotional regulation, relationships and communication skills (American Civil Liberties Union, 2014; Tandy, 2014).

In contrast to a lack of regime, Participant Seven described an unpredictable regime that lacks consistency and as a result changing day to day thus creating a level of uncertainty.

Extract 46

> *"P. Cos one some days you're coming out in the morning all day and some days you're coming out and you're only coming out for an hour and you're back behind your door and then the same in the afternoon it's always changing innit*
>
> *I. Ok so is that how it feels or is that the regime that's always changing*
>
> *P. Regime [overlap I: or both] always changing it's just the way it is on the wing as well it's always changing"*

The regime provided within HMYOIs was compared to that within STCs and secure units was discussed by Participant Four. He had resided in all three types of YCS accommodation and highlighted there are significant differences to the regimes and children spend less time within their rooms when accommodated in STCs and secure units.

Extract 47

> *"P. Cos you're out of your cell more in secure units and secure training centres [yeah] while it is a whole different regime in YOI no matter what YOI it is a whole different regime"*

In addition to the provision of and access to a regime, participants also identified specific aspects of their day that were important for them to have access to. The second subtheme was identified as children being provided with and having access to physical exercise as part of their regime. Within this subtheme Participant Two highlighted the importance of children being able to exercise, specifically by attending the gym to enable them to burn off energy. He identified attendance of the gym as particularly important due to there being limited ways to enable children accommodated within HMYOIs to exercise.

Extract 48

> *"Cos when you're in prison right you don't have nothing to do innit but you have a lot like kids have energy innit and they want to get rid of that energy so I dunno what they've done outside to get rid of that energy but in here there is no other way apart from going to gym"*

Whilst Participant Two focused on the physiological benefits of exercise for children, both exercise and sport have been identified as having physical, psychological and social benefits. Not only does exercise and sport improve mental and physical health, it also provides an alternative way to experience excitement and risk taking that children have previously achieved through offending. Furthermore, exercise and sport promote opportunities to gain new experiences and achievements, provide prosocial role models, promote community cohesion and aid children in achieving a more prosocial identity (Meek, 2018).

Participant One compared the legalities of providing exercise to children accommodated in HMYOIs to adults accommodated within custody; he highlighted there is a legal requirement for children in custody to be provided with time to exercise. His comparison to the adult custodial estate was interesting as he has never been

accommodated there hence he must have been reporting on what he had heard and/or been told.

Extract 49

> *"I don't know I don't know about HMP because HMP I've heard that some days you don't even get your exercise [hmm] yeah some days you don't but as a YP [overlap I: yeah] I know you're meant to get your exercise no matter what [overlap I: yeah] do you know what I say"*

The third subtheme was children being provided with and having access to social visits as part of their regime. Social visits allow children to maintain contact with family and friends. Within this subtheme participants discussed being able to attend the place within the YOI where visits are held to see their family and friends. Participant Six discussed how his current YOI is trying to ensure the safety of all by preventing children having social visits at the same time as children with whom they are experiencing conflict. Whilst he saw this as positive, he also identified negative consequences of this including the cancellation of visits and children not being able to have social visits.

Extract 50

> *"I. Yeah ok…is there anything that you haven't mentioned that you think contributes to a positive or a negative climate*
>
> *P. At the moment visits innit cos yo [overlap I: ok] they're tryna tryna…they're saying if you've got issues with certain people you can't be in the visits together…*
>
> *I. Right*
>
> *P. like that's that's a good thing…but at the same time when people aren't getting their visits their visits are getting cancelled…"*

The fourth subtheme identified was children's provision of and access to education as part of their activities. Within YOIs children are currently required to attend 30 hours of education weekly (Ministry of Justice, 2016b). Within this subtheme participants discussed being able to attend education daily within HMYOIs and the impact of not doing on their emotions and emotional wellbeing. Participant Four discussed being prevented from attending education due to his behaviour, which he was challenging through the YOIs complaints process. He described the impact of this as "stressful". Similarly, Participant

Seven described being sent back to his residential unit from education due to “messing around” within the classroom.

Extract 51

> *“P. And then we weren’t coming we was coming education probably an hour every day*
>
> *I. Right*
>
> *P. I was missing nearly all of our lessons then it was pissing me off it was pissin [overlap I: was it] [?] in the class but it happened for like two months coming up to two months*
>
> *I. And if everyone was getting pissed off with that what was happening like*
>
> *P. The class was being a bit like everyone was being like bastards in there*
>
> *I. A bit rowdy*
>
> *P. hmmm*
>
> *I. Yeah*
>
> *P. Everyone was messing around we was when we were in there we’d get sent back straight away cos no teacher would want us but when our teacher come back cos we’ve got a really good relationship with them we wouldn’t disrespect her wouldn’t disrespect [?] like that but some of them are rude”*

He described the impact of missing lessons has had on his emotional state describing himself as frustrated.

The fifth subtheme identified was children’s access to free time as part of their regime. During this time children choose how they spend their time; this may include making phone calls or mixing with staff and peers on their residential unit. Within this subtheme participants discussed the importance of being provided with free time. This was frequently referred to as “soc’ or “association”. Several participants described having little or no free time. Participant One discussed changes to the regime that had reduced the amount of free time that he and others received on his residential landing. He blamed the

Governing Governor for this change and the frustration he was experiencing due to the lack of free time was apparent.

Extract 52

> *"P. Yeah basically, basically before we use to be able to get soc and that all the time association but now we don't [?] times we get association just so like whatcha call it it's like if like we hardly get association like we use to"*

Finally, the subtheme of children being provided with activities to participate in as part of their regime was identified. Within the subtheme participants discussed HMYOIs providing activities and furthermore activities that children considered relevant to them. Participant Three discussed the importance of having activities to ensure that children are engaged and busy. He described his previous experience of being accommodated in an STC and the activities he had participated in. He described fondly participating in bingo nights that appeared reflective of a group-based activity that children and adolescents may enjoy.

Extract 53

> *"P. ……I think at the end of the day… in the eyes of the government we're still children cos we're not 18 yet [overlap I: uh-hu] and…to keep children focused you have to have activities……in place like…I think if there were more options available like……ev I think it would stop it from being negative*
>
> *I. Ok so like having you occupied things to do [P: yeah] different things to do*
>
> *P. Activities…yeah*
>
> *I. That would make things better Is there anything particular that like maybe you did at* [redacted] *that you think would be good to kind of keep you occupied get you know here*
>
> *P. …… We did… Bingo nights…where for say like they would have all the numbers in envelopes [uh-hu] then spread them out throughout the jail then like through the speakers or [oh ok] then they'll say like ah 2 ducks 22 whatever then the winner would get a prize"*

Similarly to van der Hem, Stams, van der Stel, van Langen & van der Laan (2012) who described an open climate as providing a structured routine, a positive climate was characterised as providing children with a consistent daily routine that consists of exercise, regular attendance of education, visits, free time in which they can choose how they spend this time and age appropriate activities. Consistency of activities and a clear schedule has been identified as allowing children to structure their lives and develop confidence (Mathys, 2017). In contrast, a negative climate was characterised as providing children with little or no regime or an inconsistent daily routine, a lack of exercise, the missing/ denial of and/or the removal from education, a reduction or lack of free time and the lack of relevant, age appropriate activities. Whilst this is in line with previous suggestions of a closed climate being characterised by boredom (van der Helm, Stams & Laan, 2011) these findings suggest a negative climate goes beyond boredom alone.

Theme 6: Punishments and Rewards

The theme 'Punishments and Rewards', discussed by eight participants, refers to the characteristics of both the punishments and rewards issued to children within HMYOIs in response to their behaviour and how these are perceived. Punishments and rewards were identified as influencing children's thoughts, emotions and behaviour and therefore climate within public sector HMYOIs. Five subthemes were identified within the analysis. (see Table 8).

Table 8

Punishments and Rewards

Theme	Subthemes
Punishments and Rewards	I. Excessive Use of Punishment
	II. Positive Behaviour is Not Recognised
	III. Rewards are Not Proportionate
	IV. Timeliness of Punishment/Reward
	V. Consistency of Punishment/Reward

The first subtheme was excessive use of punishment and described the overuse of punishment by staff. Participants discussed their perceptions of staff's motivation to impose additional punishment to their time in custody, the issuing of additional punishments resulting in the length of the original punishment being extended, the use of punishment as a threat towards children and the excessive use of separation. Participants

Six and Seven described when on the lowest level of incentives and privileges that having negative behaviour reported ("demerit") will result in the length of time spent on this level being prolonged.

Extract 54

> *"Know what I mean so like some people in there will be on basic and that and if they get a demerit they're on basic for longer innit and officers just kind of use it as a weapon so"*

Participant Six's use of the word "weapon" to describe demerits is interesting. This indicates staff use demerits as a threat or an instrument to attack with. In contrast, Participant Seven described demerits being given out "like sweets" indicating they are issued without care or judgement.

Extract 55

> *"Yeah like your basic let's just say say you was on basic for a fight yeah you do have to do seven days but if you get one demerit you stay on there for another five days and they give demerits like sweets on here on the wings"*

The second subtheme was the lack of recognition of children's positive behaviour by staff. Participants discussed their positive behaviour being overlooked by staff. Participant Three discussed staff's focus on children's negative behaviour and that this is what receives "attention".

Extract 56

> *"P. Yeah…I think the most erm attention you get in here is when…for being…like bad innit*
>
> *I. Why do you think that is*
>
> *P. ……I don't know I think it's just under a magnifying glass you're already inside jail for something bad and… they just want to punish you more some some officers… think…that you're in jail that you should be getting punished [overlap I: ok] so they will just anything bad they will see it"*

This was not the experience of all participants; Participant Two described how upon entering a YOI children are initially unknown to staff, however by undertaking positive tasks that benefit the establishments community and receiving positive feedback, they can become known to staff, including senior managers. As a result, children can develop a positive reputation and could be moved to residential units that accommodate children of similar behaviour levels. He described having positive behaviour recognised as "kind of nice".

Extract 57

> *"In a good way, when you come to prison you're nobody you're a nobody innit you're just someone that's come to prison and now doing your time [hmm] but now when you're going to education you're doing your work you have positive feedback about you going around like and when the higher ups find out that you're doing good you've cleaned the landing you're someone that's er that's keeping your head away from the bad… and then for people to acknowledge that it's kind of nice as well and then when they acknowledge that your name is something big in the prison innit [?] in the staff so they all have a good word for you and then to get yourself over here you need something like that you have to put yourself in the right like… you have to put yourself in the right position for them to end up sending you here [yeah] [?] for some people"*

Children in secure settings do, at times, display negative behaviours including violence. Whilst such behaviours do require consequences, it has been suggested that punishment alone does not lead to long-term behavioural change (Grogan-Kaylor, 2004). Furthermore, children who offend are less likely to be deterred by fear of punishment (Syngelaki, Fairchild, Moore, Savage, & van Goozen, 2013). They are however more sensitive to reward than non-offending peers and less sensitive to punishment or loss (Byrd, Loeber & Pardini, 2014; Syngelaki, Moore, Savage, Fairchild, & van Goozen, 2009).

The third subtheme was rewards are not proportionate. Participants discussed the difficulties experienced in achieving rewards and how the rewards they do receive do not reflect what they are entitled to. Within this subtheme Participant Seven compared the issuing of demerits to rewards. He described rewards as being harder to achieve than punishments. This appeared to be due to the limited ways of being able to achieve rewards, such as having a specific job within the YOI, when you have a tidy room or when

you do not receive any negative entries for poor behaviour. In contrast he did highlight that education was a place where you could achieve rewards.

Extract 58

> *"I. Yeah and you said there that they give demerits out like sweets now obviously they can give you your like green card your*
>
> *P. Merits*
>
> *I. Your merit can't you are merits given in the same way*
>
> *P. No way no no they're hard to get them*
>
> *I. They're hard to get why do you think that is*
>
> *P. Cos they're they're hard to get the only the only really way you get them if you're on the servery or your on wing cleaning or you get like eight or nine in your pad when they do cell inspections or you get no negative entries all week you get them in education quite easy*
>
> *I. Ok*
>
> *P. Cos they like if you do your work they give you a merit if you've been good in class they give you a merit on the wing it's not like that it's different"*

Participant One described how he and the other children on his residential landing do not receive the rewards, specifically free time, they are entitled to due to being on the highest level of incentives and privileges.

Extract 59

> *" [?] It just aggravates you in a way cos we're an enhanced landing and we're not allowed to get enough association"*

He described the emotional effect of him not receiving the rewards he believed he is entitled to, including frustration and stress. Of note is the use of the phrase "we're not allowed" indicating association is being withheld or prohibited.

The fourth subtheme was the timeliness of punishments and/or reward. Participants discussed the importance of being made aware of positive or negative behaviour at the time at which it occurs and the consequences it has led to. Participant Eight discussed his experience of having received several positive entries for his behaviour and applying for an

increase of incentives and privileges. Instead he was informed by staff that he had been inciting other children the day before. As a result, he was unsuccessful in achieving the increase of incentives and privileges. He questioned why he had not been challenged and staff did not explain the consequences at the time of his alleged behaviour.

Extract 60

> *"P. Yeah so I've never been enhanced I was I was good say a week before I got five green cards in a week so can I get my enhanced [overlap I: yeah] ah you you was inciting yesterday what do you mean like I don't know what you're talking about they said ah I was I created something on the AstroTurf from my window I was like cool but why why didn't you come tell me about this*
>
> *I. Ok*
>
> *P. Do you know what I mean*
>
> *I. Yeah*
>
> *P. Why haven't you but you're saying I can't get my enhanced the next day"*

Achieving the highest level of incentives and privileges appeared to be significant to Participant Seven; he highlighted he had never achieved this and reported on the positive behaviour that had enabled him to apply for this. He emphasised that despite his positive behaviour outweighing one incident of negative behaviour he did not achieve and still had not achieved the highest level.

The final subtheme was consistency of punishments and/or rewards. Participants described a lack of consistency with regards to the rewards received by children within the same HMYOI. Participant One reported children residing on another residential landing receive more rewards than he does despite having a lower IEP level. He appeared confused by this, questioning the interviewer "does that make any sense".

Extract 61

"P. Like look at all the other landings they're got soc and everything you know what I'm saying [overlap I:] they're getting like they're the standard landing and they're getting more soc than us does that make any sense

I. Right ok ok so it sounds like for someone that you've got your enhanced so you're up there in terms of privileges but you're not getting the benefits that kind of come with that that status

P. Yeah exactly"

A positive climate was characterised by the reasonable use of punishment, recognition of positive behaviour, achievable rewards, children being made aware of the behaviour that resulted in a reward or punishment in a timely manner and the consistency of rewards and punishments within and across public sector HMYOIs. Previous research has demonstrated reward-based learning is superior to punishment (Duijvenvoorde, van Zanolie, Rombouts, Raijmakers & Crone, 2008) and that rewards develop children's self-esteem and locus of control (van der Helm, Klapwijk, Stams & van der Laan, 2009). Previous literature has identified a closed climate as being characterised by the implementation of rules and punishment in a random, unsystematic manner (van Der Helm, Klapwijk, Stams & van der Laan, 2009). Similarly, the current study identified a negative climate as being characterised by the excessive use of punishment, a lack of recognition for positive behaviour, children finding it difficult to achieve rewards, inconsistency of rewards and punishments within and across public sector HMYOIs and children not being made aware of a behaviour that has resulted in a reward or punishment in a timely manner.

Theme 7: Inclusion

The theme 'Inclusion' refers to the children's perception of feeling included and heard in decisions made about them. Whilst only discussed by one participant he spoke at length regarding his experience of this and the impact it had on him. Consequently, it was identified as appropriate to include this as a theme. Participant Eleven reflected on his experience within an STC where he was aware that meetings were taking place regarding him however he was not included in the decisions that were being made. He described being "shocked", "angry" and "upset" because of this.

Extract 62

> *"P. They work with you they're not just like cos in secure and that they were just having meetings about you and that and they won't come back to you they just make decisions and that and there's they just leave you in the dark you know what I mean and then [overlap I: Right] you'll be shocked and the way you react that's going to be like in a bad way not in a good way cos you don't know anything about it and like people making decisions about your life and that [overlap I: Right] and you wanna speak about it like it's just yeah*
>
> *I. So people were making decisions that you kind of weren't even aware of [overlap P: Yeah] yeah and then and then how does how that make you feel if you're not*
>
> *P. It makes you feel a bit angry and upset that people are making decisions about you without letting you know about it or like they're just bossing you about oh so it's just it would be good to know what's going on and engage with you as well in a positive way [overlap I: Yeah] yeah"*

There are noticeable similarities between the experiences of Participant Eleven and Participant Eight who described not being informed of the issuing of punishments (see Punishments and Rewards). The findings within this theme support the theory of Procedural Justice (Tyler, 1990, as cited in Fitzalan Howard & Wakling, 2019). Procedural Justice argues that people who experience fair and just procedures results in authority figures and the law being viewed as legitimate and increases both compliance and commitment to obey the law. The four key principles of Procedural Justice are treating people with respect, decision making being consistent and based on proper procedure, people having a voice to express their thoughts, experiences and concerns that are then considered before making a decision and finally authority figures being seen as sincere and having trustworthy motives (Fitzalan Howard & Wakling, 2019; Jackson, Tyler, Bradford, Taylor & Shiner, 2010).

The current research identified a positive climate being characterised as children having or feeling they have a say in decisions that are made for and about them and decisions are explained to them in a way they understand, in other words being treated in a procedurally just manner. The ongoing implementation of SECURE STAIRS recognises and highlights the importance of collaboration, not only between staff groups but also the child, to develop formulations, set goals and planning interventions (Taylor et al., 2018). In contrast, a negative climate was characterised as being procedurally unjust; children not

having a say or feeling that they do not have a say in decisions that are made for and about them and decisions are not explained to them.

Theme 8: Future Orientation

The final theme of Future Orientation refers to participant's direction of thought; focusing on their future as opposed to their past. Whilst only discussed by two participants, both identified the impact this had on their thoughts, emotions and behaviour and therefore climate within HMYOIs. Consequently, it was identified as appropriate to include this as a theme. Three subthemes were identified within the analysis (see Table 9).

Table 9

Future Orientation

Theme	Subthemes
Future Orientation	I. Opportunity to have positive goals II. Opportunity to discuss goals III. Opportunity to achieve goals

The first subtheme identified was children having the opportunity to set and/or have positive goals for the future. Participants discussed being encouraged to focus on their personal development and look to the future and set personal goals. Participant Six described his teacher in education questioning him regarding his plans and goals for the future.

Extract 63

> *"P. I don't know recently yeah I've I've had a good teacher and that…and yo he's tries to worm into these hearts' hearts and that*
>
> *I. [laughs]*
>
> *P. Saying get your qualifications do….you know what I mean…mmmm*
>
> *I. So he's worming into hearts [P: laughs] tell me a little bit more about that then*
>
> *P. I'll be sat there yeah…and we we could be talking about anything now anything and he he'll make it into like what I'm going to do when I leave jail [overlap I: Ok] how how I'm going to better myself and that"*

The second subtheme identified was children having the opportunity to discuss with staff their goals for the future. Participant Six discussed how several staff members continue to discuss his future with him. He described, whilst in the community, how he believed his future consisted of him being sent into custody, however even though this has happened, he is questioning what his future consists of now.

Extract 64

"I. A lot of people talking to you about your future

P. Yeah [laughs] yeah

I. Yeah

P. It's always happening man yo…like I don't know why on the out yeah when people use to say it to me I use to get mad and that cos I could only see my future ending up here innit

I. Right ok

P. But now I'm in here and people chat to me about my future and that it makes me I don't know… it makes me question what's going to happen you know what I mean"

The final subtheme identified was children being provided with and having the opportunities to achieve their personal goals. Participant Two discussed having achieved the targets and goals he had had whilst in custody and was awaiting his release. He appeared proud of his achievements and hopeful for the future.

Extract 65

"I've achieved my goals innit [yeah] I don't need nothing more I've done what I wanted to do [yeah] on my resettlement plan there's nothing there no more [right] there's nothing that I need to achieve [Overlap I: cos you're doing it] I've done it yeah [Overlap I: yeah]"

This was not the experience of all participants. Participant Six discussed how some staff are unsupportive of children engaging in activities to aid them in achieving their goals. He discussed prison officers not taking his engagement with interventions seriously instead being dismissive of this and joking about his attendance.

Within the current research, a positive climate was characterised as children being future focused by being encouraged to and having personal goals, discussing these and

being provided with the opportunities to take steps to achieve them. In contrast, a negative climate was characterised by children not being future focused as they are not encouraged to and/or do not set personal goals, the future and their goals are not discussed with them and they are not provided with opportunities to achieve any goals they do have. This is in line with previous literature that has described an open climate as having opportunities for growth whereas a closed climate is characterised by hopelessness (van der Helm, Beunk, Stams & van der Laan, 2014).

3.5 Conclusion

The aim of this study was to explore what factors influence climate within secure settings, specifically HMYOIs, using the perspectives of children residing there. Through the completion of interviews, the research has demonstrated that it is possible to discuss the abstract concept of climate within secure settings and that children are able to identify what influences climate within the secure settings that they reside. Participants discussed climate across three overarching themes, 1. Staff, 2. Violence and Safety, 3. Relationships and a further five themes; 4. Resources, 5. Regime, 6. Punishments and Rewards, 7. Inclusion and 8. Future Orientation. The findings have provided implications for theory, policy and practice to influence climate within secure settings accommodating children.

Implications for Theory

The physical, neurobiological and psychosocial differences between children and adults (Richards, 2011; Shaffer, 2002) are recognised throughout society (National Conference of State Legislatures, n.d.). Within England and Wales developmental differences between children and adults, and therefore differing needs, are recognised by the criminal justice system and its stakeholders. Despite this there continues to be a reliance on existing definitions, and theoretical and conceptual frameworks of climate developed using adult populations. This creates difficulties for researchers and practitioners to evaluate the appropriateness of using existing measures with children.

The current research has identified three overarching themes and five additional themes that children have identified as influencing climate within secure settings. These

themes are recognised as influencing adolescent development, both positively and negatively, and have provided further support for the existing international literature around the factors characterising open and closed climates of secure settings accommodating children (van der Helm, Klapwijk, Stams, van der Laan, 2009; van der Helm, Stams, & van der Laan, 2011). The themes identified within this study as influencing climate have the potential to be developed into an evidenced based, child specific conceptual framework of climate. This framework would conceptualise what factors influencing climate are important and relevant to children within secure settings. The researcher is unaware of such a child specific conceptual framework of climate currently existing.

The Conceptual Framework of Climate for Children (CFCC) within secure settings is proposed in response to this. Definitions of the eight domains have been derived solely from the interview data, describing the factors raised by children residing in HMYOIs. These definitions can be found in Table 10.

Table 10

Definitions of Factors Influencing Climate to be Included in the CFCC

Domain	Definition
Staff	Children's perception of the staff working within the secure setting they reside including staff's characteristics or qualities and the approach they take to working with children.
Violence and Safety	Children's perception of violence and how safe they feel within the secure setting in which they reside. The degree to which children expect violence to occur. Children's perception of and confidence in strategies in place to minimise and/or resolve conflict.
Relationships	Children's perceptions of their relationships both within and outside of the secure setting in which they reside. The extent to which children can maintain their relationships outside of the secure setting. The perceived support children receive from such relationship. Children's perception of the characteristics and/or quality of the relationships they have with other children within secure settings in which they reside. The extent to which staff within the secure setting have time to spend with children. Children's perception of the characteristics and/or quality of the

	relationships they have with staff working within secure settings in which they reside. Children's perception of dedicated, therapeutic relationships with staff working within secure settings in which they reside.
Resources	Children's perceptions of the basic facilities provided to them within the secure setting in which they reside.
Regime	Children's perceptions of the accessibility and predictability of the routine of daily activities they have within the secure setting in which they reside. How satisfied they feel with the availability of regular exercise, social visits, education and free time.
Punishments and Rewards	Children's perceptions of the punishments and rewards available to and used by staff in response to children's behaviour. Children's perceptions of how reasonable punishments are, whether positive behaviour is recognised and whether rewards are achievable. Children are made aware of behaviour that warrants punishment or reward in a timely manner. Children's perception of consistency of punishments and rewards.
Inclusion	Children's perception of feeling included and heard in decisions made about them.
Future Orientation	Children's direction of thought; focusing on their future as opposed to their past. Children's perception of being encouraged within the secure setting they reside to set personal goals, discuss these and being provided with opportunities to work towards achieving their goals.

The CCFC would aid researchers and practitioners to focus resources appropriately on the factors influencing the development of positive, open climates within secure settings for children to reside in. Furthermore, it would inform the appropriateness of using existing measures within secure settings accommodating children and ensure that appropriate evaluation is undertaken that in turn could inform commissioning of services (Tonkin, 2016). To explore whether existing measures conceptualise climate in a similar way to the CCFC, the CFCC will be reviewed against the frameworks of four existing measures of climate in section 4.1. Should existing measures be identified as inappropriate, the CCFC

would provide the basis for the development of new measures based on information obtained directly from children residing within secure settings. This is also discussed further in section 4.1.

Implications for Policy and Forensic Practice

To the researcher's knowledge, this study is the first to engage with children to understand and explore their perceptions of the factors that influence climate within secure settings, specifically HMYOIs. Several implications for practice and policy were identified with regards to developing a positive climate and therefore positive adolescent development within secure settings accommodating children.

Reflecting on the overarching themes Staff and Relationships and the themes Punishments and Rewards and Inclusion, it is both important and necessary that staff working within secure settings accommodating children are suitably recruited, trained, supported and monitored to aid them in creating a positive, open climate (Souverein, van der Helm & Stams, 2013). Reflecting specifically on the overarching theme Staff, the research has highlighted the need for staff to demonstrate specific personal qualities and approaches. It would therefore be beneficial for candidates to be recruited using a value-based approach as opposed to, for example, a competency-based approach. An approach developed in the UK to facilitate this is the use of Warner interviews, the outcome of the 'Choosing with Care' report (Warner, 1992). The four key areas included within Warner interviews are motivation to work with children, ability to form relationships and personal boundaries, emotional resilience when working with challenging behaviours and attitudes towards the use of authority and discipline (Guidance on Warner Questions, n.d.). It is also important that those conducting such interviews are appropriately trained. The research also highlighted the need for training and guidance in several areas that were identified as influencing the thoughts, behaviours and emotions of children and therefore climate. This training and guidance should include child and adolescent development, the benefits and consequences of both rewarding and punishing adolescents and finally the principles and benefits of Procedural Justice. This should not only aid staff in developing their knowledge and understanding of these areas but aid them to consider and adapt their practice accordingly to work responsively and effectively with children. It should be available to all staff working with children and policy makers that guide and influence the practice of secure settings where children are accommodated. Finally, given that training alone is not sufficient to ensure effective practice and working with children in secure settings is

considered a 'critical occupation'[13] (Clarke, 2007), the provision of supervision for staff working with children in secure settings is recommended. Supervision is defined as

> "a formalised relationship in which regular, protected time is allocated in which a trained supervisor, support, develops, and evaluates the practice of the supervisee through a range of methods and techniques. The primary outcome for supervision is improved service provision. Thus supervision is focused on competence, ethical practice, quality and the emotional impact on the practitioner" (Davies, 2015, p. 3-4).

How, when and to whom supervision is provided should be decided locally taking into consideration the views of staff, management and the setting itself.

Reflecting on the overarching theme Violence and Safety, many children within secure settings have experienced trauma, whether this be physical and/or psychological. The effect of trauma in childhood can affect brain development including social and emotional development (e.g. Whittle et al., 2016). To reside within an environment characterised by violence that results in children feeling unsafe could result in further trauma (e.g. Osofsky, 1999). Therefore, it may be beneficial for secure settings accommodating children to identify and assess the features of the setting where violence occurs. An approach to doing this is the use of the Promoting Risk Intervention by Situational Management (PRISM; Johnstone & Cooke, 2008). PRISM focuses upon institutional violence and aims to provide a systematic, evidence-based approach for assessing and managing situational risk factors. It includes 21 risk factors within five domains; History of Institutional Violence, Physical and Security Factors, Organisational Factors, Staff Features and Case Management, (Cooke & Johnstone, 2013; Johnstone & Cooke, 2010). This would enable the identification of problem areas and aid in the development and implementation of risk intervention strategies with the overall aim of reducing violence (Johnstone & Cooke, 2007) thereby creating a more positive, open climate. Although designed and evaluated to assess violence in adult secure settings (Johnstone & Cooke, 2008), the utility of PRISM within secure settings accommodating children, specifically HMYOIs, has yielded promising results (Cregg & Payne, 2010).

Finally, reflecting on the theme Resources, food, specifically the quantity and quality of food was identified as a factor influencing climate. Given the importance of nutritional health during adolescence, that the highest prevalence of nutritional deficiencies occur

[13] Jobs that involve the exposure to potential psychological risk (Clarke, 2007).

during adolescence, and the impact this can have on the development of chronic diseases in later life (Lytle, 2002; Wahl, 1999), it is recommended that secure settings accommodating children review children's diet. This will ensure that the current provision is meeting health requirements. Children appeared to favour food that did not have much nutritional value. It may therefore also be beneficial to explore how children within secure settings can be educated about food and nutrition using innovative and effective ways.

Strengths and Limitations

The overall strength is that this study, to the researcher's knowledge, is the first to explore the factors that contribute to climate within secure settings accommodating children, specifically HMYOIs, utilising the perspectives of children residing therein. The findings provide valuable knowledge that can inform how to develop positive climates and in turn, aid positive adolescent development. The findings of the current study must however also be considered in light of potential limitations.

With regards to limitations, the study sampled male children located only within public sector HMYOIs. In addition to public sector HMYOIs, the YCS estate also includes Local Authority Secure Children's Homes (LASCH's), STCs and HMYOIs that are managed by private sector providers. Furthermore, the YCS is responsible for all children in custody including girls. Consequently there are groups that were not represented in this sample and it cannot be assumed that additional factors would not have been identified by these groups.

The researcher alone transcribed and coded the data. It may have been beneficial for a second researcher to code a small number of the interview transcripts. The identification of themes was however completed within supervision. Supervision focused on the discussion of theme content and labels with a researcher who had no prior experience of HMYOIs. As a result, the agreement of theme content and labels strengthens the reliability of the themes.

Implications for Future Research

The study has provided insight into the factors influencing climate within a specific type of secure setting. The study sample did include participants that had been accommodated across the YCS estate, including STCs and LASCHs, and the findings may therefore apply to some extent to all three settings. Future research should seek to develop and replicate a similar research design with children including both males and

females, residing within other secure settings. This would aid in understanding whether the factors identified within the current study are generalisable to all secure settings accommodating children or specific to male children residing in HMYOIs and therefore unique to the climate of this setting. Within England and Wales such research may include STC's and Secure Children's Homes.

Recommendations for the effective monitoring of climate are that measures of climate are completed by both staff and service users to ensure a balanced and representative view is obtained (Tonkin, 2016). As such future research should seek to explore the factors influencing climate within secure settings accommodating children as perceived by the staff working there.

Conclusion

The study provides a unique contribution to the climate literature by exploring what factors influence climate within secure settings, specifically public sector HMYOIs, using the perspectives of children residing there. Analysis of participant interviews utilising TA resulted in the identification of three overarching themes; 1. Staff, 2. Violence and Safety, 3. Relationships and a further five themes; 4. Resources, 5. Regime, 6. Punishments and Rewards, 7. Inclusion and 8. Future Orientation. The study's findings have provided further support for the existing international literature around the factors influencing open and closed climates of secure settings accommodating children (van der Helm, Klapwijk, Stams, van der Laan, 2009; van der Helm, Stams, & van der Laan, 2011) and therefore the development of a child specific conceptual framework of climate was discussed and the CCFC proposed. Furthermore, the study's findings offer practitioners and policy makers new insights into the development of positive climates within secure settings accommodating children. Further research is however required to explore the relevance of the identified factors to other secure settings accommodating children.

Chapter 4

4. Conclusion

This thesis sought to explore the concept of climate within secure settings accommodating children. The aim of this chapter is to highlight the findings from each of the chapters within this thesis. It will identify how each of the studies has contributed to the field of Forensic Psychology by providing up to date knowledge on climate within secure settings accommodating children and practical implications.

Chapter One established the context of the thesis by providing a review of the relevant literature regarding what is currently known about climate within secure settings accommodating children. This chapter identified difficulties in defining the concept of climate and limitations of current definitions. Despite the recognition of the developmental difference between children and adults and therefore different needs and organisational responses, the review identified there continues to be a focus and reliance on definitions of climate within secure settings accommodating adults. The chapter highlighted the need to explore and understand whether existing definitions of climate are relevant to secure settings accommodating children.

The review considered the impact climate can have on those residing within it. In light of recent youth justice statistics (Youth Justice Board & Ministry of Justice, 2020) the review focused specifically on the impact of climate on violence within custody and rates of reoffending. Whilst the impact of negative climates on levels of violence is less conclusive,

positive climates have been found to have positive effects on the number and severity of aggressive incidents (De Decker et al., 2018), be associated with less aversive reactions to social problem situations and buffer against aggression through its positive effects on low neuroticism (van der Helm, Stams, van Genabeek & van der Laan, 2012). Furthermore, positive climates have been positively associated with treatment motivation (van der Helm, Klapwijk, Stams, & Laan, 2011).

Finally, the chapter identified that the development of measures of climate began in the United States in the 1960s and subsequently spanned the globe (Tonkin, 2016). Despite this, research has focused upon measures developed for use within secure settings accommodating adults that have subsequently been used within secure settings accommodating children. The chapter highlighted the necessity for up to date research to understand the psychometric properties of existing measures of climate used within secure settings accommodating children and the relevance of their conceptual frameworks to this population to ensure that appropriate evaluation is undertaken, which in turn may inform commissioning of services (Tonkin, 2016).

After the review of the available literature, the following overarching aims of this thesis were identified as:

- To systematically investigate what is currently known within the literature about the psychometric properties of measures available used to assess perceptions of climate within secure settings accommodating children.
- To explore what factors influence climate within secure settings, specifically public sector HMYOIs, utilising the perspectives of children residing there.
- To explore whether children conceptualise climate in a manner that differs from adults.

A review of existing literature found that a previous systematic review had been undertaken to identify the available measures of climate for use within prisons and forensic psychiatric hospitals and the evidence available regarding the psychometric properties of such measures (Tonkin, 2016). This however did not distinguish between measures developed for use within settings accommodating different populations such as women and children. This is despite development and validation of measures being sample specific, and it cannot therefore be assumed that a measure of climate developed for use within secure settings accommodating adults is also appropriate for use within secure settings accommodating children.

Chapter Two synthesised the research regarding the psychometric properties of measures used to assess perceptions of climate within secure settings accommodating children. Specific objectives of this systematic review were to examine how climate within secure settings accommodating children has been defined, explore what measures have been used to evaluate perceptions of climate within these settings and to evaluate the evidence regarding the psychometric properties of those measures.

Within the 21 included studies the psychometric evidence, including Factor Structure, Internal Consistency, Reliability, Construct Validity and/or Responsiveness, of seven measures of climate administered within secure settings accommodating children was reported upon. The systematic review identified two issues with regards to definitions of climate; firstly, the lack of an agreed definition of climate as a concept and secondly the lack of consistency between existing definitions. Whilst the lack of an overall definition may be the result of previously established measures being used and therefore studies not seeking to establish or explore content validity, the lack of consistency may be the result of climate not being easily definable (Day, Casey, Vess & Huisy, 2012; Hulme, 2015). Without defining what they intend to measure, for example climate, validity cannot be confirmed. The definitions of climate that were provided are those that appear within literature focused upon climate within adult secure settings. The appropriateness of this remained unclear.

The systematic review identified an incomplete picture regarding the reporting of psychometric properties of measures of climate. Whilst this does not necessarily mean that there is poor psychometric quality, what is worrying is that the selection of measures is based upon incomplete psychometric evidence. This may impact upon both the interpretation and generalisability of results and decisions made based upon these.

When considering the overall psychometric quality of the seven measures of climate, the review identified that no measure demonstrated overall strong positive and/or negative psychometric quality. An urgent need for further research to determine the psychometric properties of these measures was identified due to lack of, or assessment of psychometric quality rated as missing or indeterminate. Based on the evidence available the review concluded that measures of climate used within secure settings accommodating children are not well validated and caution should be exercised regarding decisions to utilise any of the identified measures to evaluate new and/or existing services.

Given the lack of substantive support for the measures identified within the review, it was identified that it would be beneficial for future research to seek to provide evidence regarding the psychometric properties of measures of climate used within secure settings accommodating children. Whilst this may include the development of existing or new measures it is recommended that this is done using both relevant measure development and climate literature.

Chapter Three identified that existing theoretical and conceptual frameworks of climate have been developed using adult populations. This creates difficulties for researchers and practitioners to evaluate the appropriateness of using existing measures with children. Current research was therefore identified as needing to understand and develop the evidence base regarding conceptual frameworks of climate within secure settings accommodating children. The aim of this research was to explore what factors influence climate within secure settings, specifically public sector HMYOIs, utilising the perspectives of children residing there.

In this study, largely unstructured interviews were conducted with 11 male children accommodated within the four public-sector YOI's. The resultant transcripts were analysed using Thematic Analysis (TA). Three overarching themes were identified; 1. Staff, 2. Violence and Safety, 3. Relationships and a further five themes; 4. Resources, 5. Regime, 6. Punishments and Rewards, 7. Inclusion and 8. Future Orientation.

To the researcher's knowledge, this research is the first of its kind and attempted to explore the perspectives of children as to what factors contribute to climate within HMYOIs. The eight themes identified within the current research were identified as influencing adolescent development and have provided further support for the existing international literature regarding climate within secure settings accommodating children. As such the development of a child specific conceptual framework of climate was discussed to conceptualise what factors influencing climate are important and relevant to children within secure settings. The researcher is unaware of such a child specific conceptual framework of climate currently existing and as such the CCFC was proposed. The benefits of the CCFC were identified as including aiding those working within secure settings accommodating children to focus resources appropriately on factors influencing the development of positive, open climates for children to reside in and therefore aid positive adolescent development, inform the appropriateness of using existing measures within

these settings and provide the basis for the development of new measures based on information obtained directly from children.

The research identified implications for policy and practice. It is recommended that staff working in secure settings accommodating children are suitably recruited, trained, supported and monitored to aid them in creating a positive, open climate (Souverein, van der Helm & Stams, 2013). When recruiting potential staff interviews should be value based and use of Warner interviews (Warner, 1992) may be beneficial. Training for staff should include child and adolescent development, the benefits and consequences of both rewarding and punishing adolescents and finally the principles and benefits of Procedural Justice. Finally given that training alone does not enable effective practice, it is recommended that staff working with children in secure settings are provided with supervision. How, when and to whom supervision is provided should be decided locally taking into consideration the views of staff, management and the setting itself. Secondly, it is recommended that secure settings accommodating children identify and assess the features of where violence is occurring. An approach to doing this may include the use of PRISM (Johnstone & Cooke, 2008). This would enable the identification of problem areas and aid in the development and implementation of risk intervention strategies with the overall aim of reducing violence (Johnstone & Cooke, 2007). Finally, it is recommended that secure settings undertake a review children's diet to ensure current provision is meeting health requirements. It may also be beneficial to explore how children accommodated within secure settings can be educated about food and nutrition using innovative and effective ways.

4.1 Review of CFCC Against Existing Measures of Climate

The three overarching themes and five additional themes identified within Chapter Three conceptualise what factors influencing climate are important and relevant to children within secure settings. As such the development of a child specific conceptual framework of climate was discussed and the Conceptual Framework of Climate for Children (CFCC) within secure settings proposed (see section 3.5).

To explore whether children conceptualise climate in a manner that differs from adults, the CFCC was reviewed against the frameworks of five existing measures of climate. The MQPL (Liebling & Arnold, 2002, 2004) was identified in Chapter One as being adopted across HMPPS including YCS. Scale descriptions for the MQPL is provided in Appendix 13. Three measures, the CIES (Moos, 1987), PSCS (Saylor, 1984) and PGCI (van der Helm,

Klapwijk, Stams & van der Laan, 2009) were identified in Chapter Two as used within secure settings accommodating children. Scale descriptions for the three measures are provided in Appendix 6. The fifth measure, the EssenCES (Schalast & Tonkin, 2016a) was used within Chapter Three to inform the preliminary interview schedule. Scale descriptions for the EssenCES is provided in Appendix 14.

The definition of each domain of the CCFC (see section 3.5) was compared to the definition of each of the five measures subscales to identify similarities and differences as to how factors influencing climate were conceptualised and therefore measured. Those subscales identified as mapping on to the domains of the CCFC are identified in Table 1.

Table 1

The CFCC and Existing Measures of Climate

CFCC	Measuring Quality of Prison Life (MQPL; Liebling & Arnold, 2002, 2004)	Correctional Institutions Environment Scale (CIES; Moos, 1987)	Prison Social Climate Survey (PSCS; Saylor, 1984)	Prison Group Climate Index (PGCI; van der Helm, Klapwijk, Stams & van der Laan, 2009)	Essen Climate Scale Evaluation (EssenCES; Schalast & Tonkin, 2016a)
Staff	Dimension 1. Harmony: Staff-Prisoner Relationships			Support	Therapeutic Hold
Violence and Safety	Dimension 3. Security: Prisoner Safety			Group Atmosphere	Experienced Safety
Relationships	Dimension 1. Harmony: Respect/Courtesy, Dimension 4. Conditions and Family Contact: Family Contact	Dimension 1. Relationship: Support		Group Atmosphere	Prisoner Cohesion
Resources	Dimension 4. Conditions and Family Contact: Conditions			Group Atmosphere	
Regime		Dimension 3. System Maintenance: Clarity			

Punishment and Reward	Dimension 2. Professionalism: Staff Professionalism	Dimension 3. System Maintenance: Staff Control		Repression	
Inclusion	Dimension 2. Professionalism: Bureaucratic Legitimacy				
Future Orientation	Domain 4. Well Being and Development: Personal Development	Dimension 2. Personal Growth: Practical Orientation		Growth	

MQPL (Liebling & Arnold, 2002, 2004)

Eight of the MQPL subscales were identified as mapping to some extent onto seven of the CCFC domains. Definitions of the MQPL subscales are found in Appendix 13.

The *Staff-Prisoner Relationships* subscale of the MQPL was initially identified as mapping onto the *Relationships* domain of the CCFC based on its definition. However, on further investigation it was identified as more appropriately mapping to some extent onto the Staff domain of the CCFC due to both focusing on the staff qualities of supportiveness and trustworthiness and staff approach specifically effective communication. The Staff domain of the CCFC however also focuses on further qualities of staff that the MQPL does not capture.

The *Prisoner Safety* subscale of the MQPL was identified as mapping onto the *Violence and Safety* domain of the CCFC to some extent due to both focusing on feelings of safety. The Safety domain of the CCFC however also focuses on children's expectation of violence and confidence in strategies to minimise/resolve conflict. The Prisoner Safety subscale of the MQPL does not capture these nuances.

Two subscales of the MQPL, *Respect/Courtesy* and *Family Contact,* were identified as mapping onto the *Relationships* domain of the CCFC to some extent. The Respect/Courtesy subscale was identified as mapping due to focusing on the relationship characteristic of respect. The Family Contact subscale was identified as mapping due to focusing on the extent to which external relationships can be maintained. The Relationships domain of the CCFC however also focuses on the perceived support children receive from their external relationships. Furthermore, the Relationships domain also focuses specifically on relationships between the children which the MQPL does not.

The *Conditions* subscale of the MQPL was identified as mapping onto the *Resources* domain of the CCFC to some extent due to both focusing on the facilities provided to those residing within secure settings. The Conditions subscale of the MQPL does not however capture the nuances of the Resources domain of the CCFC such as food and ability to sleep.

The *Staff Professionalism* subscale of the MQPL was identified as mapping onto the *Punishments and Rewards* domain of the CCFC to some extent due to both focusing on the use of punishments and rewards. The Punishments and Rewards domain of the CCFC however also focuses on specific aspects of the use of punishments and rewards, such as how reasonable they are and how consistently they are used. The Staff Professionalism subscale of the MQPL does not capture these nuances.

The *Bureaucratic Legitimacy* subscale of the MQPL was not initially identified as mapping onto any domains of the CCFC based on its definition. However, on further investigation it was identified as mapping onto the *Inclusion* domain of the CCFC to some extent due to the statements focusing on the perceptions of how included services users feel within the decision-making process.

Finally, the *Personal Development* subscale of the MQPL was identified as mapping onto the *Future Orientation* domain of the CCFC to some extent due to both focusing on the provision of opportunities to work towards achieving goals. The Personal Development subscale of the MQPL does not however capture nuances of the Future Orientation domain which includes the opportunity to discuss personal goals.

The remaining 13 scales of the MQPL were not identified as mapping onto any of the CCFC domains. Whilst one of the MQPL subscales, *Staff-Prisoner Relationships*, was identified as mapping onto the *Staff* domain of the CCFC, it was noted that several of the MQPL subscales incorporated characteristics or qualities of staff. For example, the *Humanity* subscale of the MQPL includes statements regarding staff showing concern and the *Respect/Courtesy* subscale includes statements regarding staff being argumentative. In contrast the CCFC captures these aspects of staff qualities and characteristics in one discrete domain. Furthermore, it was noted that whilst they did not map per se some of the domains of the CCFC were identified as being reflective of the MQPL subscales. For example, the *Organisation and Consistency* subscale of the MQPL considers the clarity, predictability and reliability of the prison whereas the *Regime* domain of the CCFC only considers the predictability of the regime.

Given the MQPL was developed with adults this may indicate that there are additional/alternative factors that adults perceive as influencing climate. This may explain why the *Drugs and Exploitation* and *Prisoner Adaptation* domains of the MQPL did not map onto any of the domains of the CCFC; it could be argued that drugs and having trades are less of a feature of children's experiences within secure settings than adults. It may also be due to the number of participants questioned to inform the MQPL development; this being around 100 service users accommodated within prisons (Liebling & Arnold, 2002; Liebling, Hulley & Crewe, 2012). Alternatively, the MQPL is a measure of quality of life; described as measuring 'the social, relational and moral climate of a prison' (Liebling, 2012, p. 3), and whilst the climate within secure settings will undoubtedly influence quality of life it is perhaps reasonable to suggest that that the MQPL goes beyond measuring solely the concept of climate.

CIES (Moos, 1987)

Four of the CIES subscales were identified as mapping onto four of the CCFC domains to some degree. Definitions of the CIES subscales are found in Appendix 6.

The *Clarity* subscale of the CIES was identified as mapping on to the *Regime* domain of the CCFC to some degree due to both focusing on the predictability of the regime. The Regime domain of the CCFC however also focuses on children's satisfaction with specific aspects of their daily activities which the Clarity subscale does not.

The *Support* subscale of the CIES was identified as mapping on to the *Relationships* domain of the CCFC to some degree due to both focusing on the characteristic of support towards others and from staff. The Relationships domain of the CCFC however also focuses on several additional characteristics of relationships both between children and between staff and children that is not captured by the Support subscale. Furthermore, the Relationships domain also captures external relationships, which again the Support subscale does not.

The *Staff Control* subscale of the CIES was identified as mapping on to the *Punishments and Rewards* domain of the CCFC to some degree due to both focusing on the way in which staff apply the rules. Again, however the Punishments and Rewards domain of the CCFC focuses on specific aspects of the use of punishments and rewards, such as how reasonable they are and how consistently they are used. It is unclear whether the Staff Control subscale of the CIES captures these nuances.

Finally, the *Practical Orientation* subscale of the CIES was identified as mapping on to the *Future Orientation* domain of the CCFC to some degree due to both focusing on the future outside of custody. The Future Orientation domain of the CCFC however also focuses on encouragement to set and opportunity to achieve personal goals.

The remaining six scales of the CIES were not identified as mapping onto any of the CCFC domains. One explanation for this could be that the CIES was developed with both children and adults and this may indicate that there are additional/alternative factors that this combination of groups perceives as influencing climate. A second explanation for this may be the age of the measure; the CIES was developed in 1987. Hence the measure may not accurately represent secure settings accommodating children and therefore what factors influence climate at this current time. Whilst there is some overlap it does not appear that the CIES captures the nuances as to how children conceptualise climate.

PSCS (Saylor, 1984)

Definitions of the PSCS subscales are unavailable. Whilst Ross, Diamond, Liebling and Saylor (2008) have provided a description of what some of the PSCS subscales relate to, for example the *Physical Environment* subscale is described as relating to food, noise and visits the description does not provide a definition and therefore the comparison of definitions could not be undertaken. It could not therefore be ascertained whether or to what extent the PSCS subscales mapped onto the CCFC's domains.

PGCI (van der Helm, Klapwijk, Stams & van der Laan, 2009)

All four subscales of the PGCI were identified as mapping on to six of the CCFC domains. Definitions of the PGCI subscales are found in Appendix 6.

The *Support* subscale of the PGCI was identified as mapping on to the *Staff* domain of the CCFC to some degree due to both focusing on the staff's behaviour and approaches to work. The Support subscale however focuses specifically on staff's responsiveness whereas the Staff domain of the CCFC captures several characteristics or qualities of staff.

The *Group Atmosphere* subscale was identified as mapping on to three of the CCFC domains, *Violence and Safety, Resources and Relationships*. This was due to the Group Atmosphere subscale focusing on feelings of safety, access to resources such as daylight and the characteristic of trust between service users. In contrast the CCFC captures these aspects in three discrete domains.

The *Repression* subscale of the PGCI was identified as mapping to some degree on to the *Punishments and Rewards* domain of the CCFC due to focusing on perceptions of rules. Similarly to the CIES, it is however unclear as to whether the Repression subscale of the PGCI captures the nuances of the Punishments and Rewards domain of the CCFC.

Finally, the *Growth* subscale of the PGCI was identified as mapping to some degree on to the *Future Orientation* domain of the CCFC due to focusing on feelings towards the future. The Future Orientation domain of the CCFC however also focuses specifically on children's personal goals.

These findings suggest that whilst the PGCI may conceptualise elements of climate similar to that of the CCFC, it does not capture the nuances as to how children conceptualise climate.

EssenCES (Schalast & Tonkin, 2016a)

Finally, all three of the EssenCES subscales were identified as mapping on to three of the CCFC domains. Definitions of the EssenCES subscales can be found in Appendix 13.

The *Therapeutic Hold* subscale of the EssenCES was identified as mapping onto the *Staff* domain of the CCFC. Both focus on characteristics and qualities of staff working within secure settings.

The *Experienced Safety* subscale of the EssenCES was identified as mapping on to the *Violence and Safety* domain of the CCFC *to* some degree. Both focus upon perceptions of violence however the Violence and Safety domain of the CCFC also focuses upon how safe children feel and their perceptions of and confidence in strategies in place to minimise and/or resolve conflict.

Finally, the *Prisoner Cohesion* subscale of the EssenCES was identified as mapping to some degree onto the *Relationships* domain of the CCFC due to both focusing on the characteristic of support. Similarly to the subscales of CIES and PGCI, the Prisoner Cohesion subscale does not capture the additional characteristics of relationships between children and between staff and children described in the Relationships domain of the CCFC. Furthermore, it does not capture external relationships described in the Relationships domain of the CCFC.

Similarly to the PGCI, these findings suggest that whilst the EssenCES may conceptualise elements of climate similar to that of the CCFC, it does not capture the nuances as to how children conceptualise climate.

None of the five existing measures of climate include and measure all the domains of the CFCC. This research indicates that whilst there are noticeable overlaps between the way in which children and adults conceptualise climate, there are also clear differences and therefore the content of existing measures of climate is not entirely appropriate for use with children within secure settings. Although some elements of existing measures are reflective of the CCFC domains, this research would support that it would be both appropriate and beneficial to develop a new measure of climate for use in secure settings accommodating children. Given that construct of climate has been identified as narrower than the construct of quality of life as measured by the MQPL, a new measure should therefore not only focus on the domains specific to children as opposed to adults but also ensure the measure has content validity; that it focuses on the domains relevant for climate and not broader constructs such as quality of life.

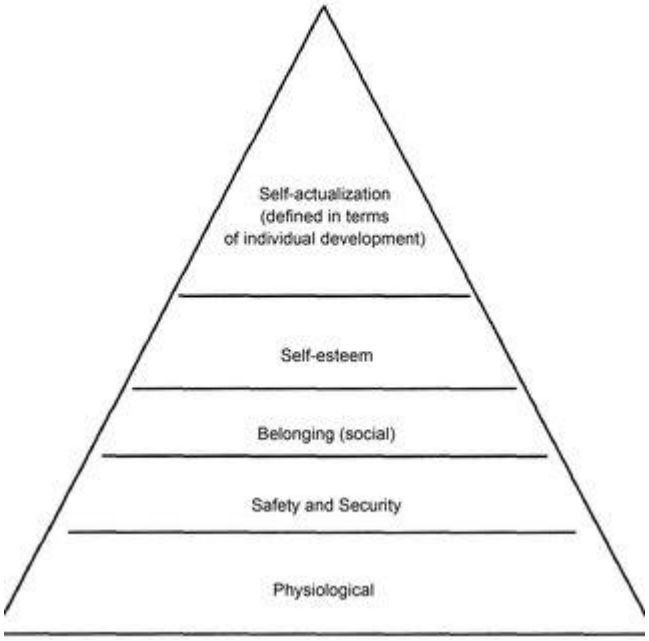
If, existing measures are to be used in the interim, the MQPL, PGCI and EssenCES measure some of the domains within the CFCC. However, to be fully appropriate for use in secure settings accommodating children, all would require further development to ensure their scales are conceptually consistent with the CFCC. The development should focus on the identification and inclusion of appropriate questions reflecting the nuances of the CFCC domains onto which they map. Also, in particular with regards to the MQPL which, although appears to contain climate-related content also goes beyond the measurement of climate so it will be necessary to identify which dimensions and which content of the dimensions relates to climate and which refers to the broader concept of quality of life. Development should also focus on the identification and inclusion of appropriate questions to measure the CCFC domains that are not currently mapped. Finally, it will also be necessary to ensure the language used reflects that of secure settings accommodating children for example referring to children as children as opposed to prisoners. This may result in the development of child specific versions of these measures.

4.2 Theoretical Framework of Climate

Having proposed the CFCC it is important to consider the degree to which it fits within existing psychological theory. The researcher observed how the CCFC reflects the work of Abraham Maslow and his theory entitled Hierarchy of Needs (1943) that explores what motivates individuals. Maslow proposed that human behaviour is motivated by 'needs' that can be organised into a hierarchy made up of five tiers, which are Physiological, Safety and Security, Love and Belongingness, Esteem and Self-Actualisation, and often depicted as a triangle (see Figure 1).

Figure 1

Maslow's hierarchy of needs (Gambrrel & Cianci, 2003)



The definitions of both the 'needs' within Maslow's hierarchy and the eight domains of the CCFC were reviewed and plotted against each other (see Table 2).

Table 2

Maslow's Hierarchy of Needs and CCFC Domains

Maslow's Hierarchy of Needs	CFCC Domains
1. Physiological	Resources
2. Safety	Violence and Safety Regime
3. Love and Belonging	Relationships Staff
4. Esteem	Punishments and Rewards Inclusion
5. Self-Actualisation	Future Orientation

The first 'need' at the bottom of Maslow's Hierarchy is Physiological, which are the basic but essential requirements for living and survival such as food, water, shelter. Without these humans cannot function properly (Bernstein, Penner, Clarke- Stewart & Roy,

2003; McLeod, 2020). The CFCC domain, Resources was identified as mapping on to this need due to its focus upon the facilities within secure settings including food.

The second 'need' in the hierarchy is Safety and Security and refers to the need for an ordered and predictable environment. When this is not met it results in anxiety or fear (Bernstein et al., 2003; McLeod, 2020). The CFCC domains Violence and Safety and Regime were identified as mapping onto this need due their focus upon both children feeling safe from violence but also having access to a predictable routine of daily activities.

The third 'need' in the hierarchy is Love and Belongingness and involves feeling loved and a sense of connection within romantic relationships and relationships with family and friends. The need for relationships therefore motivates behaviour (Bernstein et al., 2003; McLeod, 2020). The CFCC domain Relationships was identified as mapping onto this need due its focus upon several types of relationships both within and external to secure settings. The CCFC domain of Staff was also identified as tentatively mapping onto the need of Love and Belongingness due to the positive characteristics of staff potentially aiding the development of positive relationships.

The fourth 'need' in the hierarchy is Esteem; the desire to feel good about oneself and is broken down into two categories, self-esteem and the desire for respect/reputation. Maslow indicated the desire for respect is most important for children and precedes self-esteem (Bernstein et al., 2003; McLeod, 2020). The CFCC domain of Punishments and Rewards was identified as mapping onto this as it could be argued that being rewarded for positive behaviour creates a sense of achievement. The CCFC domain of Inclusion was also identified as tentatively mapping onto the need of Esteem due to self-esteem being characterised by independence (McLeod, 2020).

The final 'need' in the hierarchy is Self-Actualisation and refers to the realisation of an individual's potential and achieving self-fulfilment. It is the desire to become the most you can be (Bernstein et al., 2003; McLeod, 2020). The CFCC domain of Future Orientation was identified as mapping onto this need due to it including working towards and achieving personal goals, which encourages the personal growth and self-fulfilment of children.

Needs at the lower levels of the hierarchy must at least be partially met before people are motivated by the higher levels of the hierarchy. This may explain why the domains of Staff, Violence and Safety and Relationships that reflect the 'needs' of Safety and Love and Belonging were discussed at length by multiple participants; these are at the bottom of Maslow's Hierarchy and can be seen to be the most important. Furthermore, it may also explain why the domain of Future Orientation, which reflects the 'need' of Self

Actualisation, was discussed by only a very small number of participants. One explanation of this could be due to where the participants are developmentally and therefore have not reached 'self-actualisation'. Another explanation may be that the emergence of higher order psychological needs depends on the satisfaction of the basic ones. The climate in which most of the participants reside within may not fulfil these basic needs. It would therefore be necessary for both new and existing measures of climate used with children in secure settings to include subscales to measure basic needs such as resources and regime.

To the researcher's knowledge the concept of climate within secure settings, and more specifically secure settings accommodating children, has not previously been linked to need fulfilment. In light of this, a proposed definition of climate is:

"the environmental impact on the perceived fulfilment of individuals' needs".

Defining climate in terms of need fulfilment suggests that a positive climate is one where children's needs are consistently met resulting in the development of individual motivation and therefore growth and self-fulfilment. In contrast a negative climate will be one where children's needs are inconsistently met or not met resulting in a lack of individual motivation which in turn results in a lack of personal growth and self-fulfilment. This may explain why, given the importance of adolescence, the characteristics of the environment in which someone resides may have more influence on an individual's behaviour (Mischel, 2004) and when residing in a positive climate children may become less aggressive and violent (De Decker et al., 2018), increase their treatment motivation (van der Helm, Klapwijk, Stams, & Laan, 2011) and develop personal characteristics such as empathy (Van der Helm, Stams, van der Stel, van Langen & van der Laan, 2012). Consequently, investing in the development of a positive, open climate should aid children to disengage from a pro-criminal lifestyle by motivating them to adopt a prosocial identity, thereby reducing rates of reoffending (Farrall & Maruna, 2004).

Defining climate in terms of need fulfilment places the CCFC in a theoretical framework as opposed to it being based on opinion. It should however be noted that to conceptualise climate in terms of need fulfilment and the ability of the environment to fulfil those needs is unlikely to be without limitations. It has been suggested that needs are not hierarchical, and the order of need can be different for different people. As such there may not be a single, universal hierarchy (Bernstein, Penner, Clarke-Stewart & Roy, 2003). Therefore, when seeking to achieve an open and positive climate, the focus should be directed at meeting the needs of children within the whole hierarchy as opposed to

prioritising the focus on the needs at the lower level of the hierarchy before working up the hierarchy. Further empirical work is required to explore the proposal that climate is related to need fulfilment and the strengths and limitations of this.

4.3 Critical Appraisal of the Thesis

Whilst this thesis has contributed to the literature regarding climate within secure settings accommodating children, several factors must be taken into consideration when applying and interpreting the overall findings.

The Systematic Review (Chapter Two) explored the psychometric properties of measures of climate used within secure settings accommodating children. Several methodological limitations were identified including the exclusion of papers not published in English, the lack of inclusion of the term 'correctional' in the search terms, the possibility of unconscious selection bias and the use of the COSMIN methodology to assess quality despite measures of climate not being patient outcome measures. Finally, the requirement of statistical evidence resulted in the exclusion of a measure of climate that, by comparison, is considered in its infancy.

The Research Study (Chapter Three) is the first to the researcher's knowledge to engage with children to understand and explore their perceptions of the factors that influence climate within secure settings. The study sampled male children aged 16-18 accommodated within HMYOIs within England. There are groups that were not represented in this sample, including female children, children accommodated within alternative secure settings within England and children accommodating in secure settings outside of England. Furthermore, the study did not sample staff working within secure settings. It cannot be assumed that the same or additional factors would not have been identified by these groups. A further methodology limitation was also identified as it was the researcher alone who transcribed and coded the data.

A further limitation of this thesis is that the proposal of the CCFC, theoretical framework and definition of climate is based solely on one Research Study (Chapter Three). Furthermore, this thesis has not developed a child specific measure of climate based on the CCFC.

4.4 Conclusion

This thesis has met all the aims identified within Chapter One by exploring the concept of climate within secure settings accommodating children and increasing

understanding of this to guide practice whilst fulfilling the requirements of a professional doctorate. Despite limitations within both the Systematic Review and the Research Study, this thesis has provided up to date knowledge on the psychometric properties of existing measures of climate used within secure settings accommodating children. Furthermore, it has also provided up to date knowledge on children's perceptions of the factors that influence climate within public sector HMYOIs and whether children conceptualise climate in a manner that differs from adults. This in turn has led to the proposal of the CCFC, theoretical framework and a definition of climate within these settings.

Based on the findings of both the Systematic Review and Research Study this thesis concludes that whilst there are similarities in the way children and adults accommodated within secure settings conceptualise climate, there are also notable differences, consequently the content of existing measures of climate are not entirely appropriate for use with children accommodated within secure settings. As such the development a new measure that is consistent with the CCFC is proposed. The mapping process (see section 4.1) has highlighted that the construct of climate is narrower than the construct of quality of life, as measured by the MQPL, in view of this a new measure should not only focus on the domains specific to children as opposed to adults but also ensure the measure has content validity; that it focuses on the domains relevant to climate and not broader constructs such as quality of life.

It is anticipated that the findings and recommendations within this thesis will aid those responsible for and working within secure settings that accommodate children to continue to work towards achieving positive climates. This in turn will aid children returning to their communities to make positive contributions and reduce the likelihood of reoffending.

References

Adjukovic, D. (1990). Psychosocial climate in correctional institutions: Which attributes described it? *Environment and Behavior,* 22, 420-432.

Agnew, R. (2009). General Strain Theory. In M.D. Krohn, A.J. Lizotte, & G.P. Hall (Eds.), *Handbook on Crime and Deviance.* (pp. 169-185). New York: Springer.

Andrews, D. A., & Bonta, J. (2003). *The Psychology of Criminal Conduct. (3rd Edition).* Cinicinnati, Ohio: Anderson Publishing.

American Civil Liberties Union. (2014). *Alone and Afraid: Children Held in Solitary Confinement and Isolation in Juvenile Detention and Correctional Facilities.* New York: Author.

Arain, M., Haque, M., Johal, L., Mathur, P., Nel, W., Rais, A., Sandhu, R. & Sharma, S. (2013). Maturation of the adolescent brain. *Neuropsychiatric Disease and Treatment, 9,* 449-461.

Armstrong, G.S., & MacKenzie, D.L. (2003). Private versus public juvenile correctional facilities: do differences in environmental quality exist? *Crime and Delinquency, 49 (4),* 542-563.

Barton, W.H., & Mackin, J.R. (2012). Towards a strength-based juvenile correctional facility: sustainability and effects of an institutional transformation. *Journal of Offender Rehabilitation, 51,* 435-452.

Bernstein, D.A., Penner, L.A., Clarke-Stewart, A., & Roy, E.J. (2003). *Psychology*. (6th Ed.) Boston, United States: Houghton Mifflin Company.

Blevins, K.R., Listwan, S.J., Cullen, F.T., & Jonson, C.L. (2010). A general strain theory of prison violence and misconduct: An integrated model of inmate behaviour. *Journal of Contemporary Criminal Justice, 26,* 148-166.

Borum, R. (2000). Assessing violence risk among youth. *Journal of Clinical Psychology, 56,* 1263-1288.

Bradford, A.R. (2006). *An examination of the prison environment: An analysis of inmate concerns across eight environmental dimensions* [Unpublished Thesis]. East Tennessee State University.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

Braun, V. & Clarke, V. (2012). Thematic analysis. In H. Cooper (Ed.), *APA Handbook of Research Methods in Psychology: Vol. 2. Research Designs, Quantitative, Qualitative, Neuropsychological and Biological*. Washington: American Psychological Association.

Braun, V. & Clarke, V. (2013). *Successful Qualitative Research. A Practical Guide for Beginners*. London: Sage Publications Ltd.

British Psychological Society (2014). *Code of Human Research Ethics.* Leicester: Author.

British Psychological Society. (2018). *Code of Ethics and Conduct.* Leicester: Author.

Byrd, A. L., Loeber, R. & Pardini, D. A. (2014). Antisocial behaviour, psychopathic features and abnormalities in reward and punishment processing in youth. *Clinical Child and Family Psychology Review, 17,* 125-156.

Byrne, J. M., & Hummer, D. (2007). Myths and realities of prison violence: A review of the evidence. *Victims & Offenders, 2*(1), 77-90.

Camp, S.D., Gaes, G.G., Klein-Saffran, J., Daggett, D.M., & Saylor, W.G. (2002). *Using Inmate Survey Data in Assessing Prison Performance: A Case Study Comparing Private and Public Prisons.* Washington: Office Research and Evaluation.

Cann, J., Falshaw, L., Nugent, F., & Friendship, C. (2003). Understanding what works: Accredited cognitive skills programmes for adult men and young offenders. *Home Office Research, Development & Statistics Directorate Research Findings No. 226.* London: Home Office.

Cherry, M.G., & Dickson, M. (2017). Defining my review question and identifying inclusion and exclusion criteria. In A. Boland, M. G. Cherry, & R. Dickson (Eds.), *Doing a Systematic Review. A Students Guide* (2nd Ed.) (pp. 44-59). London: Sage Publications Ltd.

Clarke, J. (2007). Promoting professional resilience. In M.C. Calder (Ed.), *Contemporary Assessment in Safeguarding Children.* (pp. 164-180). Dorset: Russell House Publishing.

Clarke, P. (2019). *Urgent Notification: HMYOI Feltham A*. Retrieved from https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2019/07/22july-SofS-Urgent-Notification-FelthamA.pdf

Collins-Donnelly, K. (2012). *Starving The Anger Gremlin – Anger management for Young People*. *(2nd Ed.).* Trafford Publishing.

Cooke, D. J., & Johnstone, L. (2010). Somewhere over the rainbow: Improving violence risk management in institutional settings. *International Journal of Forensic Mental Health, 9*, 150-158.

Cooke, D.J., & Johnstone, L. (2013). Risk management. Beyond the individual. In C. Logan., & L. Johnstone. (Eds.), *Managing Clinical Risk. A Guide to Effective Practice.* (pp. 165-180). New York: Routledge.

Cooke, D. J., Wozniak, E., & Johnstone, L. (2008). Casting light on prison violence in Scotland. *Criminal Justice and Behavior, 35*, 1065-1078.

Cordier, R., Milbourn, B., Martin, R., Buchanan, A., Chung, D., & Speyer, R. (2017). A systematic review evaluating the psychometric properties of measures of social inclusion. *PLoS ONE 12*(6).

Craig, L.A., Dixon, L., & Gannon, T. (2013). Overview and structure of the book. In L.A. Craig, L. Dixon, & T. Gannon (Eds.), *What Works in Offender Rehabilitation. An Evidence-Based Approach to Assessment and Treatment.* (pp. 3-19). West Sussex, England: John Wiley & Sons.

Cregg, M. & Payne, E. (2010). PRISM with incarcerated young people: Optical illusion or reflection of reality. *International Journal of Forensic Mental Health, 9,* 173-179.

Crotty, M. (2003). *The Foundations of Social Research: Meaning and Perspectives in the Research Process.* (3rd Ed.). London: Sage Publications.

Daggett, D.M. & Camp, S.D. (2010). Do official misconduct data tell the same story as the individuals who live in prison? *Criminal Justice Review, 34,* 428-449.

Davies, J. (2015). *Supervision for Forensic Practitioners.* Oxfordshire: Routledge.

Day, A., Casey, S., Vess, J. & Huisy, G. (2012). Assessing the therapeutic climate of prisons. *Criminal Justice and Behaviour, 39,* 156-168.

Debidin, M. & Lovbakke, J. (2005). Offending behaviour programmes in prison and probation. In G. Harper & C. Chitty (Eds), *The Impact of Corrections on Re-Offending: A Review of 'What Works'. Home Office Research Study 291* (3rd ed., pp. 31-51). London: Home Office.

de Decker, A., Lemmens, L., van der Helm, P., Bruckers, L., Molenberghs, G., & Tremmery, S. (2018). The relation between aggression and the living group climate in a forensic treatment unit: A pilot study. *International Journal of Offender Therapy and Comparative Criminology, 62,* 1821-1837.

DeLisi, M., Berg, M.T., & Hochstetler, A. (2004). Gang members, career criminals and prison violence: further specification of the importation model of inmate behaviour. *The Justice Professional, 17,* 369-383

DeVellis, R.F. (1991). *Scale Development: Theory and Applications*. London: SAGE.

Dhami, M.K., Ayton, P., & Loewenstein, G. (2007). Adaptation to prison environment. Indigenous or imported? *Criminal Justice and Behaviour, 34,* 1085-1100.

Dodgson, J.E. (2019). Reflexivity in qualitative research. *Journal of Human Lactation, 35*, 220-222.

Duijvenvoorde, A.C.K., van Zanolie, K., Rombouts, S.A.R.B., Raijmakers, M.E.J & Crone, E.A. (2008). Evaluating the negative or valuing the positive? Neural mechanisms supporting feedback-based learning across development. *Journal of Neuroscience, 28,* 9495-9503.

Eltink, E M A., Hoeve, J.T., De Jongh, T., van der Helm, G.H.P., Wissink, I.B. & Stams, G.J.J.M. (2018). Stability and change in adolescents' aggressive behavior residential youth care. *Child Youth Care Forum, 47,* 199-127.

Eltink, E.M.A, van der Helm, P., Wissink, I.B., & Stams, G.J.J.M (2015). The relation between living group climate and reactions to social problem situations in detained adolescents: "I stabbed him because he looked mean at me". *International Journal of Forensic Mental Health, 14,* 101-109.

Farrall, S., & Maruna, S. (2004). Desistance-Focused Criminal Justice Policy Research: Introduction to a Special Issue on Desistance from Crime and Public Policy. *The Howard Journal of Criminal Justice, 43*, 358-367.

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics. (4th Ed.).* London: Sage Publications Ltd.

Fitzalan Howard, F., & Wakeling, H. (2019). *Prison and staff perceptions of procedural justice in English and Welsh prisons.* London: HMPPS.

Fitzpatrick, R., Davey, C., Buxton, M. J., & Jones, D. R. (1998). Evaluating patient-based outcome measures for use in clinical trials: a review. *Health Technology Assessment, 2(14),* 1-74.

Ford, J.D. (2005). Treatment implications of altered affect regulation and information processing following child maltreatment. *Psychiatric Annals, 35,* 410–419.

Furr, R.M. (2011). *Scale Construction and Psychometrics for Social and Personality Psychology.* London: Sage Publications Ltd.

Gadon, L., Johnstone, L., & Cooke, D. (2006). Situational variables and institutional violence: A systematic review of the literature. *Clinical Psychology Review, 26*, 515-534.

Gambrrel, P.A. & Cianci, R. (2003). Maslow's Hierarchy of Needs: Does It Apply in a Collectivist Culture. *Journal of Applied Management and Entrepreneurship, 8,* 143-161.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (*4th ed.). Boston: Allyn & Bacon.

Glennon, C., & Sher, M.A. (2018). Evaluation of the EssenCES in a neurodevelopmental inpatient service for adolescents. *Journal of Intellectual Disabilities, 22,* 233-245.

Gove, M. (2015) *Youth Justice Written Statement*. Accessed https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2015-09-11/HCWS190/

Gover, A.R., Perez, D.M., & Jennings, W.G. (2008). Gender differences in factors contributing to institutional misconduct. *The Prison Journal, 88,* 378-403.

Greenhalgh, J., & Brown, T. (2011). Quality assessment: Where do I begin? In A. Boland, M. G. Cherry, & R. Dickson (Eds.), *Doing a Systematic Review. A Students Guide* (2nd ed., pp.108-129). London: Sage Publications Ltd.

Grogan-Kaylor, A. (2004). The effect of corporal punishment on antisocial behaviour in children. *Social Work Research, 28,* 153-162.

Guidance on Warner Interviews. (n.d.). Retrieved August 24, 2020 from https://www.reconstruct.co.uk/public/docs/materials/CornwallIslesScilly/Safer%20Recruitment/Guidance%20on%20Warner%20questions.pdf

Harding, R. (2014). Rehabilitation and prison social climate: Do 'what works' rehabilitation programs work better in prisons that have a positive social climate. *Australian and New Zealand Journal of Criminology, 47,* 163-175.

Heal, K., Sinclair, l., & Troop, J. (1973). Development of a social climate questionnaire for use in approved schools and community homes. *The British Journal of Sociology, 24*, 222-235.

Her Majesty's Inspectorate of Prisons. (n.d.). Urgent Notification. Retrieved from https://www.justiceinspectorates.gov.uk/hmiprisons/about-hmi-prisons/urgent-notifications/

Her Majesty's Inspectorate of Prisons. (2015). *Report on An Unannounced Inspection of Keppel Unit HMYOI Wetherby.* Author: London.

Her Majesty's Inspectorate of Prisons. (2018a). *Report on An Unannounced Inspection of HMYOI Cookham Wood.* Author: London.

Her Majesty's Inspectorate of Prisons (2018b). *HM Chief Inspector of Prisons for England and Wales Annual Report 2017-18.* London: Author.

Her Majesty's Inspectorate of Prisons. (2019a). *Report on An Announced Inspection of HMYOI Feltham A Children's Unit.* Author: London.

Her Majesty's Inspectorate of Prisons. (2019b). *Report on An Unannounced Inspection of HMYOI Wetherby and Keppel.* Author: London.

Her Majesty's Inspectorate of Prisons. (2019c). *Report on An Unannounced Inspection of HMYOI Werrington.* Author: London.

Heynen, E., van der Helm, P., Cima, M., Stams, G-J., & Korebrits, A. (2017). The relation between living group climate, aggression and callous-unemotional traits in delinquent boys in detention. *International Journal of Offender Therapy and Comparative Criminology, 61,* 1701-1718.

Hinkin, T.R. (1998). A brief tutorial of the development of measures for use in survey questionnaires. *Organizational Research Methods, 1,* 104-121.

Hinkin, T.R., Tracey, J.B., & Enz, C.A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality and Tourism Research, 21,* 100-121.

HM Government. (2015). *Working Together to Safeguard Children. A Guide to Inter-Agency Working to Safeguard and Promote the Welfare of Children.* London, Author.

HM Government & NHS. (2018). *The Children and Young People Secure Estate National Partnership Agreement 2018-2021.* London: Author.

HMPPS. (2018a). *Youth Custody Service Partnership Bulletin.* London: Author. Retrieved from https://www.gov.uk/government/publications/youth-custody-service-partnership-bulletin-march-2018/youth-custody-service-partnership-bulletin-march-2018

HMPPS. (2018b). *HM Prison and Probation Service Business Plan 2018-2019.* London: Author.

HMPPS. (2018c). *Records, Information Management and Retention Policy*. London: Author.

HMPPS & YCS. (2017). *The Youth Custody Service Placement Team. Overview of Operational Procedures.* London: Author.

Hochstetler, A., & DeLisi, M. (2005). Importation, deprivation and varieties of serving time: An integrated lifestyle exposure model of prison offending. *Journal of Criminal Justice, 33,* 257-266.

House of Commons Affairs Committee. (2004). *Rehabilitation of Prisoners. First Report of Session 2004-2005*. London: Author.

Hu, L. & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal, 6,* 1-55.

Hulme, M. (2015). Climate. *Environmental Humanities, 6*, 175-178.

Ireland, C.A. (2010). Key stages and factors in the consultancy process and relationship: The importance of stakeholders, organisational boundaries, culture and their management. In C.A. Ireland & M.J. Fisher. (Eds.), *Consultancy and Advising in Forensic Practice. Empirical and Practical Guidelines* (pp. 17-34). West Sussex: BPS Blackwell, John Wiley and Sons.

Irwin, J., & Cressey, D. (1962). Thieves, convicts, and the inmate culture. *Social Problems, 10,* 142-155.

Jackson, J., Tyler, T. R., Bradford, B., Taylor, D., & Shiner, M. (2010). Legitimacy and procedural justice in prisons. *Prison Service Journal, 191,* 4-10.

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. *Pragmatics and Beyond New Series, 125,* 13–34.

Johnstone, L., & Cooke, D.J. (2008). *PRISM Promoting Risk Intervention by Situational Management. Structured Professional Guidelines for Assessing Situational Risk Factors for Violence in Institutional Settings.* Glasgow: Northern Networking.

Johnstone, L., & Cooke, D.J. (2010). PRISM: A promising paradigm for assessing and managing institutional violence: Findings from a multiple case study analysis of five Scottish prisons. *International Journal of Forensic Mental Health, 9,* 180-191.

Jolliffe, D., & Farrington, D.P. (2004). Empathy and offending: A systematic review and meta-analysis. *Aggression and Violent Behaviour, 9,* 441-476.

Jones, M. (1953). *The Therapeutic Community.* New York: Basic Books.

Kahn, J.H. (2006). Factor analysis in counseling psychology research, training, and practice: Principles, advances, and applications*. The Counseling Psychologist, 34,* 684-718.

Kesey, K. (1962). *One Flew Over the Cuckoo's Nest*. New York: Viking Press.

Kohn, M., Jeger, A.M. & Koretzky, M.B. (1979). Social-ecological assessment of environments: toward a two-factor model. *American Journal of Community Psychology, 7, 481-495.*

Lahm, K.F. (2008). Inmate-on-inmate assault: A multilevel examination of prison violence. *Criminal Justice and Behaviour, 35,* 120-137.

Lefebvre, C., Manheimer, E., & Glanville, J. (2008). Searching for studies. In J.P.T. Higgins & S. Green (Eds.), *Cochrane Handbook for Systematic Reviews of Interventions*. (p.95-150). West Sussex: John Wiley and Sons Ltd.

Leipoldt, J.D., Kayed, N.S, Harder, A.T., Grietens, H. & Rimehaug, T. (2018). Refining the COPES to measure social climate in therapeutic residential youth care. *Child Youth Care Forum, 47,* 173-197.

Lewis, S. (2016). *Therapeutic Correctional Relationships: Theory, Research and Practice.* London: Routledge.

Lewis, S. (2017). A campaign for climate change. The role of the therapeutic relationships within a climate of control. In G. Akerman, A. Needs & C. Bainbridge (Eds.), *Transforming Environments and Rehabilitation* (pp. 115-131). London: Routledge.

Levrouw, D., Roose, R., van der Helm, P. & Strijbosch, E., & Vandevelde, S. (2018). Developing a positive living group climate in residential youth care: A single case study. *Child and Family Social Work,* 1-8.

Liberati, A., Altman, D.G., Tetzlaff, J., Mulrow, C., Gotzsche, P.C., Ioannidis, J.P.A., Clarke, M., Devereaux, P.J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: Explanation and elaboration. *British Medical Journal,* 339: b2700.

Liebling, A. (2012). What us MQPL? Solving puzzles about the prison. *Prison Service Journal, 202.*

Liebling, A. (2014). *Prison quality, moral performance and outcomes.* Speech presented at the 19th Council of Europe Conference of the Directors of Prison and Probation Services Helsinki.

Liebling, A., & Arnold, H. (2002). *Findings 174. Measuring the Quality of Prison Life*. London: Home Office.

Liebling, A., & Arnold, H. (2004). *Prisons and their Moral Performance: A Study of Values, Quality and Prison Life.* Oxford: Clarendon Studies in Criminology, Oxford University Press.

Liebling, A., Hulley, S., & Crewe, B. (2011). Conceptualising and measuring the quality of prison life. In D. Gadd, S. Karstedt & S.F. Messner. *The SAGE Handbook of Criminological Research Methods.* London: SAGE Publications Inc.

Logan, C.H. (1992). Wellkept: Comparing quality of confinement in private and public prisons. *The Journal of Criminal Law and Criminology, 8,* 577-613.

Lytle, L.A. (2002). Nutritional issues for adolescents. *Journal of American Dietetic Association, 102,* S8-S12.

MacKenzie, D. L., Wilson, D. B., Armstrong, G.S., & Gover, A. R. (2001). The impact of boot camps and traditional institutions on juvenile residents: Perceptions, adjustment, and change. *Journal of Research in Crime & Delinquency, 38,* 279-313.

Marshall, W.L., & Burton, D.L. (2010). The importance of group process in offender treatment. *Aggression and Violent Behavior, 15,* 141-149.

Maslow, A.H. (1943). A theory of human motivation. *Psychological Review, 50,* 370-396.

Mathys, C. (2017). Effective components of interventions in juvenile justice facilities: How to take care of delinquent youths? *Children and Youth Services Review, 73,* 319-327.

McCorkle, R. C., Miethe, T., & Drass, K. A. (1995). The roots of prison violence: A test of the deprivation, management, and not-so-total institutions models. *Crime and Delinquency, 2,* 197-221.

McGuire, J. (1995). *What Works: Reducing Reoffending: Guidelines from Research and Practice.* UK: John Wiley & Sons Ltd.

McLaren, K.L. (2000). *Tough Is Not Enough. Getting Smart About Youth Crime. A Review of Research on What Works to Reduce Offending by Young People.* Wellington, NZ: Ministry of Youth Affairs.

McLeod, S. (2020). *Maslow's Hierarchy of Needs.* https://www.simplypsychology.org/maslow.html

McMurran, M. (2002) Motivation to change: selection criterion or treatment need? In McMurran, M. (Ed.), *Motivating Offenders to Change: A Guide to Enhancing Engagement in Therapy* (pp. 3-15). Chichester: John Wiley.

McMurran, M. & Theodosi, E. (2007). Is treatment non-completion associated with increased reconviction over no treatment? *Psychology, Crime and Law, 13,* 345-354.

Meek, R. (2018). *A Sporting Chance: An Independent Review of Sport in Youth and Adult Prisons*. London: Ministry of Justice.

Miller, P., & Eisenberg, N. (1988). The Relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin*, *103*(3), 324-344.

Ministry of Justice. (2014). *Freedom of Information Request.* Retrieved from https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F326267%2Fmeaning-accreditation-body.doc

Ministry of Justice. (2016). *The Government Response to Charlie Taylor's Review of The Youth Justice System.* London: Author.

Ministry of Justice. (2016b). *30 Hours Education A Week for Young Offenders.* Retrieved from https://www.gov.uk/government/news/30-hours-education-a-week-for-young-offenders

Ministry of Justice. (2018). *Proven Reoffending Statistics Quarterly Bulletin, October 2016 to December 2016.* Author: London

Ministry of Justice. (2019). *Annual Prison Performance Ratings Guide 2018/19.* London: Author.

Ministry of Justice & Youth Custody Service. (2017). Youth Justice Reform Programme. Author: London.

Minor, K.I., Wells, J.B., & Jones, B. (2001). Staff perceptions of the work environment in juvenile group home settings. *Journal of Offender Rehabilitation, 38,* 17-30.

Mischel, W. (2004). Toward an integrative science of the person. *Annual Review of Psychology, 55*, 1-22.

Moher, D., Liberati, A., Tetzlaff, J. & Altman, D.G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *British Medical Journal,* 339: b2535.

Mokkink, L.B., Prinsen, C.A.C., Patrick, D.L., Alonso, J., Bouter, L.M., de Vet, H.C.W. & Terwee, C.B. (2018). *COSMIN Methodology for Systematic Reviews of Patient-Reported Outcome Measures (PROM's) User Manual.* Amsterdam, The Netherlands: VU Medical Centre.

Mokkink, L.B., Terwee, C.B., Patrick, D.L., Alonso, J., Stratford, P.W., Knol, D.L., Bouter, L.M. & de Vet, H.C.W. (2010). The COSMIN checklist for assessing the methodological quality of studies on measurement properties of health status measurement instruments: an international Delphi study. *Quality of Life Research, 19*, 539- 549.

Moos, R.H. (1968). The assessment of the social climates of correctional institutions. *Journal of Research in Crime and Delinquency, 5*, 174-188.

Moos, R.H. (1974). *Ward Atmosphere Scale Manual.* Palo Alto, CA: Consulting Psychologists Press.

Moos, R.H. (1987). *Correctional Institutions Environment Scale Manual.* Palo Alto, CA: Consulting Psychologists Press.

Moos, R.H. (1989). *Ward Atmosphere Scale Manual.* (2nd Ed.). Palo Alto, CA: Consulting Psychologists Press.

Moos, R. H. (2009). *Community Oriented Programs Environment Scale Manual (4th ed.).* Menlo Park, CA: Mind Garden.

Moos, R. H., & Houts, P. S. (1968). Assessment of the social atmospheres of psychiatric wards. *Journal of Abnormal Psychology*,*73*, 595–604.

Morris, R.G., Carriaga, M.L., Diamond, B., Piquero, N.L., & Piquero, A.R. (2012). Does prison strain lead to prison misbehavior? An application of general strain theory to inmate misconduct. *Journal of Criminal Justice, 3,* 194-201.

Morrison, B., Blood P., & Thorsborne, M. (2006). Practising Restorative Justice in School Communities: The Challenges of Culture Change. *Public Organisation Review: A Global Journal, 5*, 335–357

Mulvey, E.P., Schubert, C.A., & Odgers, C.A. (2010). A method for measuring organizational functioning in juvenile justice facilities using resident ratings. *Criminal Justice and Behaviour, 37,* 1255-1277.

Murphy, R., & Hutton, P. (2018). Practitioner review: Therapist variability, patient-reported therapeutic alliance, and clinical outcomes in adolescents undergoing mental health treatment - a systematic review and meta-analysis. *Journal of Child Psychology & Psychiatry,* 59, 5 – 19.

National Conference of State Legislatures. (n.d.). *Adolescent Development and Competency. Juvenile Justice Guidebook for Legislators.* Denver: Author.

Naar-King, S. & Suarez, M. (2010). *Motivational Interviewing with Adolescents and Young Adults.* New York: The Guildford Press

Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric Theory (3rd ed.).* New York: McGraw-Hill.

Osofsky, J.D. (1999). The impact of violence on children. *The Future of Children, 9,* 33-49.

Pallant, J. (2007). *SPSS Survival Manual*. (3rd Ed.). Berkshire: Open University Press.

Parry, S. (undated). *Fit Indices Commonly Reported for CFA and SEM* [PDF]. Cornell Statistical Consulting Unit, Cornell University, Ithaca, New York.

Pearson, R.H. & Mundform, D.J. (2010). Recommended sample size for conducting exploratory factor analysis on dichotomous data. *Journal of Modern Applied Statistical Methods, 9,* 359-368.

Peters, A.M.F., & Corrado, R.R. (2013). An examination of the early “strains” of imprisonment among young offenders incarcerated for serious crimes. *OJJDP Journal of Juvenile Justice*, *2*, 76-94.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews*. A product from the ESRC methods programme Version 1,* b92.

Pyrooz, D. C., Decker, S. H., & Fleisher, M. (2011). From the street to the prison, from the prison to the street: understanding and responding to prison gangs. *Journal of Aggression, Conflict and Peace Research, 3,* 12-24.

Rattray, J., & Jones, M. C. (2005). Essential elements of questionnaire design and development. *Journal of Clinical Nursing, 16,* 234-243.

Ray, D.W., Wandersman, A., Ellisor, J., & Huntington, D. E. (1982). The effects of high density in a juvenile correctional institution. *Basic and Applied Social Psychology, 3,* 95-108.

Research Projects. (n.d). Retrieved from https://www.ucl.ac.uk/evidence-based-practice-unit/research/research-projects

Restorative Justice Council. (n.d.). Retrieved from https://restorativejustice.org.uk/

Richards, K. (2011). What makes juvenile offenders different from adult offenders. *Trends and Issues in Crime and Criminal Justice, 409,* 1-8.

Ros, N., van der Helm, P., Wissink, I., Stams, G-J., & Schaftenaar, P. (2013). Institutional climate and aggression in a secure psychiatric setting, *The Journal of Forensic Psychiatry & Psychology, 24,* 713-727.

Ross, M.W., Diamond, P.M., Liebling, A., & Saylor, W.G. (2008). Measurement of prison social climate. A comparison of an inmate measure in England and the USA. *Punishment and Society, 10,* 447-474.

Ryan, R.M., & Deci, E.L. (2000a). Intrinsic and extrinsic motivations: Classic definition and new directions. *Contemporary Educational Psychology, 25,* 54-67.

Ryan, R.M., & Deci, E.L. (2000b). Self determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist, 55*, 68-78.

Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers*. London: SAGE Publications Ltd.

Sadlier, G. (2010). Evaluation of the impact of the HM Prison Service Enhanced Thinking Skills programme on reoffending. Outcomes of the surveying prisoner crime reduction (SPCR) sample. *Ministry of Justice Research Series, 19/10.* London: Home Office.

Salkind, N.J. (2010). Encyclopaedia of Research Design. Retrieved from http://sk.sagepub.com/reference/researchdesign

Saylor, W.G. (1984). "Surveying Prison Environments". In *Unpublished manuscript*, Washington, DC: Office of Research, Federal Bureau of Prisons.

Saylor, W.G., Gilman, E.B & Camp, D.S. (1996). Prison Social Climate Survey: Reliability and Validity Analyses of the Work Environment Scales. In *Unpublished manuscript*, Office of Research and Evaluation, Federal Bureau of Prisons

Schalast, N. (2016). Conceptual framework. In N. Schalast, & M. Tonkin (Eds.), *The Essen Climate Evaluation Schema-EssenCES. A Manual and More*. Abingdon, Oxfordshire: Hogrefe Publishing.

Schalast, N. & Laan, J.M. (2017). Measuring Social Climate in German Prisons Using the Essen Climate Evaluation Schema. *The Prison Journal, 97,* 160-188.

Schalast, N., Redies, M., Collins, M., Stacey, J. & Howells, K. (2008). EssenCES, a short questionnaire for assessing the social climate of forensic psychiatric wards. *Criminal Behaviour and Mental Health, 18,* 49-58.

Schalast, N. & Tonkin, M. (Eds.). (2016a). *The Essen Climate Evaluation Schema-EssenCES. A Manual and More*. Abingdon, Oxfordshire: Hogrefe Publishing.

Schalast, N. & Tonkin, M. (2016b). Overview. In N. Schalast & M. Tonkin (Eds.), *The Essen Climate Evaluation Schema-EssenCES. A Manual and More* (pp. 1-3). Abingdon, Oxfordshire: Hogrefe Publishing.

Schein, E.H. (1993). *Organisational Culture and Leadership.* San Francisco: Jossey-Bass.

Schellingerhout, J.M., Verhagen, A.P., Heymans, M.W., Koes, B.W., de Vet, H.C., & Terwee, C.B. (2012). Measurement properties of disease-specific questionnaires in patients with neck pain: A systematic review. *Qual Life Res. 21, 659–70*

Schmidt, B. (2014). *MQPL+ Doing Prisons Research Differently* [PowerPoint Slides]. Retrieved from http://www.crim.cam.ac.uk/research/prc/newsaevents/MQPL%20Doing%20Prisons%20Research%20Differently%20-%20Bethany%20Schmidt.pdf

Shaffer, D.R. (2002). *Developmental Psychology: Childhood and Adolescence.* Belmont, California: Wadsworth/Thomson Learning.

Shirk, S. R. & Karver, M. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 71*, 452-464.

Silverman, D. (2013). *Doing Qualitative Research: A Practical Handbook.* (4th Edition). London: Sage Publications.

Smith, B.W., Maume, M.O, & Reiner, S.M. (1997). Perceptions of social climate in a juvenile correctional institution. *Journal of Offender Rehabilitation, 25,* 143-162.

Solomon, E. (2004). *A Measure of Success: An analysis of the Prison Service's performance against its Key Performance Indicators 2003-2004.* London: Prison Reform Trust.

Souverein, F.A., van der Helm, G.H.P & Stams, G.J.J.M. (2013). 'Nothing works' in secure residential youth care. *Children and Youth Services Review, 35,* 1941-1945.

Spencer-Oatey, H. (2012). *What is Culture? A Compilation of Quotes.* GlobalPAD Core Concepts.

Standing Committee For Youth Justice. (2010). Raising the custody threshold. Retrieved from http://scyj.org.uk/wp-content/uploads/2014/03/Raising_the_custody_threshold_SummaryAug10_FINAL.pdf

Stern, G. G. (1963). *Scoring Instructions and College Norms: Activities Index, College Characteristics Index.* Syracuse: Syracuse University, Psychological Research Centre.

Stohr, M.K., & Walsh, A. (2011). *Corrections: The Essentials.* California: Sage Publications Inc.

Streiner, D.L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment, 80,* 99-103.

Styve, G.J., MacKenzie, D.L., Gover, A.R., & Mitchell, O. (2000). Perceived conditions of confinement: A national evaluation of juvenile bootcamps and traditional facilities. *Law and Human Behaviour, 24,* 297-308.

Suzuki, M., & Hayes, H. (2016). Current debates over restorative justice: concept definition and practice. *Prison Service Journal, 228,* 4-8.

Sykes, G. (1958). *The Society of Captives.* Princeton, NJ: Princeton University Press.

Syngelaki, E. M., Fairchild, G., Moore, S. C., Savage, J. C., & van Goozen, S. H. M. (2013). Fearlessness in juvenile offenders is associated with offending rate. *Developmental Science, 16,* 84-90.

Syngelaki, E. M., Moore, S. C., Savage, J. C., Fairchild, G., & van Goozen, S. H. M. (2009) Executive functioning and risky decision making in young male offenders. *Criminal Justice and Behavior, 11,* 1213-1227.

Tandy, K.B. (2014). Do no harm: The enhanced application of legal and professional standards in protecting youth from the harm of isolation in youth correctional facilities. *Children's Legal Rights Journal, 34,* 143-174.

Taxman, F.S., Cropsey, K.L., Melnick, G., & Perdoni, M.L. (2008). COD services in community correctional settings: an examination of organizational factors that affect service delivery. *Behavioural Sciences and The Law, 26,* 435-455.

Taylor, C. (2016). *Review of The Youth Justice System in England and Wales.* London: Ministry of Justice.

Taylor, J., Shostak, L., Rogers, A., & Mitchell, P. (2018). Rethinking mental health provision in the secure estate for children and young people: a framework for integrated care (SECURE STAIRS). *Safer Communities, 17,* 193-201.

Taylor, J.H. & Walker, L.J. (1996). Moral climate and the development of moral reasoning: the effects of dyadic discussions between young offenders. *Journal of Moral Education, 26,* 21-43.

Terwee, C.B., Bot, S.D.M., de Boer, M.R., van der Windt, D.A.W.M., Knol, D.L., Dekker, J., Bouter, L.M., & de Vet, H.C.W. (2007). Quality criteria were proposed for measurement properties of health status questionnaires. *Journal of Clinical Epidemiology, 60,* 34-42.

Terwee, C.B., Prinsen, C.A.C., Chiarotto, A., Westerman M.J., Patrick, D.L., Alonso, J., Bouter, L.M., de Vet, H.C.W., & Mokkink, L.B. (2018). COSMIN methodology for evaluating the content validity of patient reported outcome measures: a Delphi study. *Quality of Life Research, 27,* 1159-1170.

Tonkin, M. (2016). A review of questionnaire measures for assessing the social climate in prisons and forensic psychiatric hospitals. *International Journal of Offender Therapy and Comparative Criminology, 60,* 1376-1405.

Tonkin, M., & Howells, K. (2011). Evaluation of regimes and environments. In K. Sheldon, J. Davies & K. Howells. (Eds.), *Research in Practice for Forensic Professionals.* (pp. 249-270). Oxon, UK: Routledge.

Tonkin, M., Howells, K., Ferguson, E., Clark, A., Newberry, M., & Schalast, N. (2012). Lost in translation? Psychometric properties and construct validity of the English Essen Climate Evaluation Schema (EssenCES) social climate questionnaire. *Psychological Assessment, 24*, 573–580.

Towberman, D.B. (1992). Client-counsellor similarity and the client's perception of the treatment environment. *Journal of Offender Rehabilitation, 18,* 158-171.

Towberman, D.B. (1993). Group vs. individual counselling: Treatment mode and the client's perception of the treatment environment. *Journal of Group Psychotherapy, Psychodrama & Sociometry, 45,* 163-174.

Trochim, W.M.K. (2006, October). *Convergent and Discriminant Validity.* Retrieved from http://www.socialresearchmethods.net/kb/convdisc.php

United Nations Committee on the Rights of the Child. (2008). *Consideration of Reports Submitted by States Parties under Article 44 of the Convention. Concluding Observations: United Kingdom of Great Britain and Northern Ireland.* Geneva: United Nations.

United Nations. (1985). United Nations Standard Minimum Rules for the Administration of Juvenile Justice ("The Beijing Rules"). Retrieved from https://www.ohchr.org/Documents/ProfessionalInterest/beijingrules.pdf

United Nations (1989). The United Nations Convention on The Rights of The Child. Retrieved from https://downloads.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf?_ga=2.200182955.422609330.1585662697-1817569839.1544784604

UNICEF. (n.d.). Old Enough to Be a Criminal. Retrieved from https://www.unicef.org/pon97/p56a.htm

UNICEF. (2009). *Progress for Children. A Report Care on Child Protection.* Author: New York.

van der Helm, P., Beunk, L., Stams, G.J. & van der Laan, P. (2014). The relationship between detention length, living group climate, coping and treatment motivation among juvenile delinquents in a youth correctional facility. *The Prison Journal, 94,* 260-275.

van der Helm, P., Boekee, I., Stams, G.J., & van der Laan, P. (2011). Fear is the key: keeping the balance between flexibility and control in a Dutch youth prison. *Journal of Children's Services, 6,* 248-263.

van der Helm, P., Klapwijk, M., Stams, G., & van der Laan, P. (2009). 'What works' for juvenile prisoners: the role of group climate in a youth prison. *Journal of Children's Services, 4,* 36-48.

van der Helm, G.H.P., Kuiper, C.H.Z., & Stams, G.J.J.M. (2018). Group climate and treatment motivation in secure residential and forensic youth care from the perspective of self-determination theory. *Children and Youth Services Review, 93,* 339-344.

van der Helm, G.H.P., Matthys, W., Moonen, X., Giesen, N., van Der Heide, E.S., & Stams, G.J.J.M. (2013). Measuring inappropriate responses of adolescents to problematic social situations in secure institutional and correctional youth care: a validation study of the TOPS-A. *Journal of Interpersonal Violence, 28,* 1579-1595.

van der Helm, P., Stams, G.J., & van der Laan, P. (2011). Measuring group climate in prison. *The Prison Journal, 91,* 158-176.

van der Helm, P.G., Stams, G.J.J.M., van der Stel, J.C., van Langen, M.A.M., & van der Laan, P.H. (2012). Group climate and empathy in a sample of incarcerated boys. *International Journal of Offender Therapy and Comparative Criminology, 56,* 1149-1160.

van der Helm, P., Stams, G.J., van Genabeek, M., & van der Laan, P. (2012). Group climate, personality and self-reported aggression in incarcerated male youth. *The Journal of Forensic Psychiatry and Psychology, 23,* 23-39.

van der Helm, G.H.P., Wissink, I B., De Jongh, T. & Stams, G.J.J.M. (2013). Measuring treatment motivation in secure juvenile settings. *International Journal of Offender Therapy and Comparative Criminology, 57,* 996-1008.

van der Tillaart, J., Eltink, E., Stams, G.J., van der Helm, P. & Wissink, I. (2018). Aggressive incidents in residential youth care. *International Journal of Offender Therapy and Comparative Criminology, 62,* 3991-4007.

Viljoen, J.L., Nicholls, T.L., Cruise, K.R., Beneteau-Douglas, J., Desmarais, S.L., Barone, C.C., Petersen, K., Morin, S. & Webster, C.D. (2016). *START AV: Knowledge Guide. A Research Compendium on the START: AV Strength and Vulnerability Items.*

Wahl, R. (1999). Nutrition in the adolescent. *Paediatric Annuals, 28*, 107-111.

Ward, T., Day, A., Howells, K. & Birgden, A. (2004). The multifactor offender readiness model. *Aggression and Violent Behaviour, 9*, 645- 673.

Warner, N. (1992). *Choosing with Care. The Report of the Committee of Inquiry in the Selection, Development and Management of Staff in Children's Homes.* Her Majesty's Stationary Office: London.

Whittle, S., Simmons, J.G., Hendriksma, S., Vijayakumar, N., Byrne, M.L., Dennison, M., & Allen, N.B. (2016). Childhood maltreatment, psychopathology, and the development of hippocampal subregions during adolescence. *Brain and Behavior,7,* 1-9

World Health Organisation. (1953). *The Community Mental Hospital: Third Report of the Expert Committee on Mental Health, no. 73*. Geneva: Switzerland.

Wormith, J. S., & Oliver, M. E. (2002). Offender treatment attrition and its relationship with risk, responsivity, and recidivism. *Criminal Justice and Behaviour, 29*, 447-471.

Wright, K. N. (1985). Developing the Prison Environment Inventory. *Journal of Research in Crime and Delinquency, 22,* 257-277.

Wright, K. (1993). Prison environment and behavioural outcomes. *Journal of Offender Rehabilitation, 20,* 93-113.

Wright, K., & Boudouris, J. (1982). An assessment of the Moos correctional institutions environment scale. *Journal of Research in Crime and Delinquency, 19,* 255-276.

Wright, K.N., & Saylor, W.G. (1991). Male and female employees' perceptions of prison work: Is there a difference? *Justice Quarterly, 8*, 505-524.

Wright, K.N. & Saylor, W.G. (1992). A comparison of perceptions of the work environment between minority and nonminority employees of the federal prison system. *Journal of Criminal Justice 20,* 63-71

Youth Custody Service. (2019a). *Youth Custody Service Business Plan 2019/2020*. London: Author

Youth Custody Service. (2019b). *Monthly Youth Custody Report-November 2019.* Retrieved from https://www.gov.uk/government/statistics/youth-custody-data?utm_source=a30bfd34-9d49-47d0-878e-b9b20c771f0c&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate

Youth Justice Board & Ministry of Justice. (2020). *Youth Justice Statistics 2018/19 England and Wales.* London: Author.

Appendix 1: Systematic Review Search Strategy

Searches were based on the following search strategy. Search terms were set to explore 'anywhere except the full text' using the search syntax below:

Adolescent* or teenagers or "young people" or "under 18" or child* or delinquent* or juvenile* or "young offender*"

And

Prison or institution or "secure training centre" or unit or hospital or jail or ward or facilit* or "residential care" or "youth care institution"

And

Climate or milieu or environment or atmosphere

And

Measure or assessment or scale or screen or questionnaire or checklist or tool

Appendix 2. COSMIN definitions of domains and psychometric properties (Mokkink et al., 2018)

Table 1

COSMIN definitions of domains and psychometric properties (Mokkink et al., 2018)

Psychometric Property	Domain and Definition
	Reliability: the degree to which the measurement is free from measurement error.
Internal consistency	The degree of the interrelatedness among the items.
Reliability	The proportion of the total variance in the measurements which is because of "true" differences among patients.
Measurement Error	The systematic and random error of a patient's score that is not attributed to true changes in the construct to be measured.
	Validity: the degree to which a measure measures the construct(s) it purports to measure.
Content validity	The degree to which the content of a measure is an adequate reflection of the construct to be measured.
Face validity[14]	The degree to which (the items of) a measure indeed looks as though they are an adequate reflection of the construct to be measured.
Construct validity	The degree to which the scores of a measure are consistent with hypotheses based on the assumption that the measure validly measures the construct to be measured.
Structural validity[15]	The degree to which the scores of a measure are an adequate reflection of the dimensionality of the construct to be measured.
Hypotheses testing[16]	Item construct validity.
Cross-cultural validity[17]	The degree to which the performance of the items on a translated or culturally adapted measure are an adequate reflection of the performance of the items of the original version of the measure.
Criterion validity	The degree to which the scores of a measure are an adequate reflection of a "gold standard".
Responsiveness	The ability of a measure to detect change over time in the construct to be measured.
Interpretability[18]	The degree to which one can assign qualitative meaning to a measure's quantitative scores/ score change.

[14] Aspect of content validity under the domain of validity.
[15] Aspects of construct validity under the domain of validity.
[16] Aspects of construct validity under the domain of validity.
[17] Aspects of construct validity under the domain of validity.
[18] Interpretability is not considered a psychometric property.

Appendix 3: Quality Criteria for Measurement Properties

Table 2

Quality Criteria for Measurement Properties (Cordier et al., 2017; Terwee et al., 2007)

Property	Definition	Quality Criteria
Content Validity	The extent to which the domain of interest is comprehensively sampled by the items in the questionnaire	+ A clear description is provided of the measurement aim, the target population, the concepts that are being measured, and the item selection AND target population and (investigators OR experts) were involved in item selection ? A clear description of above-mentioned aspects is lacking OR only target population involved OR doubtful design or method - No target population involvement ± Conflicting results NR No information found on target population involvement NE Not evaluate
Internal Consistency	The extent to which items in a (sub) scale are intercorrelated, thus measuring the same construct	+ Factor analyses performed on adequate sample size (7 * # items and100) AND Cronbach's alpha(s) calculated per dimension AND Cronbach's alpha(s) between 0.70 and 0.95 ? No factor analysis OR doubtful design or method - Cronbach's alpha(s)<0.70 or>0.95, despite adequate design and method ± Conflicting results NR No information found on internal consistency NE Not evaluated

Criterion Validity	The extent to which scores on a measure relate to a gold standard	+ Convincing arguments that gold standard is "gold" AND correlation with gold standard ≥0.70 ? No convincing arguments that gold standard is "gold" OR doubtful design or method - Correlation with gold standard <0.70, despite adequate design and method ± Conflicting results NR No information found on criterion validity NE Not evaluated
Construct Validity	The extent to which scores on a measure relate to other measures in a manner that is consistent with theoretically derived hypotheses concerning the concepts that are being measured	+ Specific hypotheses were formulated AND as least 75% of the results are in accordance with the hypotheses; ? Doubtful design or method (e.g. no hypotheses) - Less than 75% of hypotheses were confirmed, despite adequate design and methods ± Conflicting results NR No information found on criterion validity NE Not evaluated
Reliability (inter rater reliability, intra rater reliability, repeated measurement)	The extent to which patients can be distinguished from each other, despite measurement errors (relative measurement error)	+ ICC or weighted Kappa 0.70 ? Doubtful design or method (e.g., time interval not mentioned) - ICC or weighted Kappa <0.70, despite adequate design and method ± Conflicting results NR No information found on reliability NE Not evaluated
Responsiveness	The ability of a measure to detect clinically important change over time	+ SDC or SDC< MIC or MIC outside the LOA OR RR>1.96 OR AUC≥0.70 ? Doubtful design or method

- SDC or SDC≥ MIC or MIC outside the LOA OR RR<1.96 OR AUC≤0.70 despite adequate design and methods
± Conflicting results
NR No information found on criterion validity
NE Not evaluated

Appendix 4: Revised Levels of Evidence for the Overall Quality of the Measurement Properties

Table 3

Revised levels of evidence for the overall quality of the measurement properties (Schellingerhout et al. 2012)

Level	Criteria
Strong	Consistent findings in multiple studies of good methodological quality OR in one study of excellent methodological quality
Moderate	Consistent findings in multiples studies of fair methodological quality OR in one study of good methodological quality
Limited	One study of fair methodological quality
Conflicting	Conflicting findings
Not Evaluated[19]	Only studies of poor methodological rating
Indeterminate[20]	Only indeterminate data on measurement properties

[19] Studies that received a "poor" methodological quality rating were excluded from further analysis and received a score of NE (not evaluated)

[20] Indeterminate outcome data on the assessment measurement property, therefore, also indeterminate level of evidence for the overall quality of that measurement property.

Appendix 5: A Descriptive Summary of Measures of Climate

Table 4

A Descriptive Summary of Measures of Climate

Measures	Number of Items	Method of Item Generation	Number of Scales	Description of Scales
CIES/COPES	90/100	Generated from the WAS for which items were generated by observations, literature and interviews.	9 scales/10 scales, 3 dimensions	Dimension 1. Relationship: Involvement Support, Expressiveness/Spontaneity. Dimension 2. Personal Growth: Autonomy Practical Orientation Personal Problem Orientation Anger and Aggression (excluded from CIES). Dimension 3. System Maintenance: Order and Organisation, Programme Clarity Staff Control.
PGCI	36/37	Information not provided	4 dimensions	Support Growth Atmosphere Repression.
PSCS	189 (Service User version)/ Unknown (Staff version)	Information not provided	5 Scales/7 Scales	Service User: Background Data Quality of Life Personal Wellbeing Staff Services Programmes Utilised, Personal Safety and Security. Staff: Socio-demographics Personal Safety and Security Quality of Life Personal Well-Being Work Environment Community Environment Housing Preferences Special Interest Section.
SCS	47	Literature and reasoning.	7 scales	Behaviour Boy Friendliness Clarity Satisfaction Staff Support Strictness Work

Un-named, (Mulvey, Schubert & Odgers, 2010)	165	Generated from intuition and experience to reflect the institutional environment that impacts on adolescent development.	8 dimensions, 16 scales	Safety Institutional Order Harshness Caring Adults Fairness Antisocial Peers Services Re-entry Planning
Un-named, (Styve, MacKenzie, Gover & Mitchell	129	Used categories identified in previous research examining institutional environments	13 scales, 3 higher order factors	Higher order factors: Therapeutic Environment Hostile Environment Freedom and Choice. Scales: Control Resident Danger Danger from Staff, Environmental Danger Activity Care Risks to Residents Quality of Life Structure, Justice Freedom Therapeutic Programmes

Appendix 6: Climate Measure Scales and Scale Descriptions

Table 5

CIES (Moos, 1987)/ COPES (Moos, 2009) Scale Descriptions

Dimension	Scale	Description
Relationships	Involvement	How active and energetic residents are in the day to day functioning of the programme.
	Support	The extent to which residents are encouraged to be helpful and supportive to each other and how supportive staff is towards residents.
	Expressiveness/Spontaneity	The extent to which the programme encourages the open expression of feelings by residents and staff.
Personal Growth	Autonomy	The extent to which residents are encouraged to take initiative in planning activities and leadership in the unit.
	Practical Orientation	The extent to which the resident's environment orientates him toward preparing himself for release from the programme.
	Personal Problem Orientation	The extent to which residents are encouraged to be concerned with their personal problems and feelings and seek to understand them.
	Anger and Aggression[21]	The extent to which a residents are free to display anger, argue and display other expressions of anger.
System Maintenance	Order and Organisation	How important order and organisation are in the programme, in term of residents, staff and the facility itself.

[21] Subscale found only within the COPES (Moos, 2009)

	Clarity	The extent to which the resident knows what to expect in the day to day routine of his programme and how explicit the programme rules and procedures are.
	Staff Control	The extent to which the staff use regulations to keep residents under necessary controls.

Table 6

PGCI (van der Helm, Klapwijk, Stams & van der Laan, 2009) Scale Descriptions

Scale	Description
Repression	Perceptions of strictness including control, unfairness, arbitrary rules and lack of flexibility with the living group
Support	Professional's behaviour, specifically the responsiveness of those working with the group to the needs of individual group members
Growth	Perceptions of learning including hope for the future and giving meaning to time within the facilities
Group Atmosphere	The treatment and trust between group members, feelings of safety, the ability to have peace of mind and the accessibility of daylight and fresh air

Table 7

PSCS (Saylor, 1984) Work Environment Scales

Dimension	Scales
Work Environment	Perceptions of Structure and Lines of Authority Perceptions of Supervision Satisfaction with the Overall Organisation Satisfaction with the Facility Job Satisfaction Sense of Self Efficacy Perception of Stress

Table 8

SCS (Heal, Sinclair & Troop, 1973) Scales Descriptions

Scale	Description
Behaviour	The amount of aggressive and dishonest behaviour which the boys see in the school.
Boy Friendliness	The degree to which the boys see each other as friendly.
Clarity	The degree to which the staff are seen as expressing clear and consistent expectations.
Satisfaction	The degree to which the boys expressed favourable attitudes towards the school.
Staff Support	The degree to which the staff are perceived as interested, warm and supportive.
Strictness	The degree to which the staff are seen to expect 'good' and respectable behaviour
Work	The emphasis the school is perceived to place on hard work.

Table 9

Unnamed (Mulvey et al.) Scales and Subscales

Scale	Subscale
Safety	Fear
	Exposure to Violence
Institutional Order	Overall Organisation
	Staff Connectedness
	Staff Negative Behaviour
Harshness	Sanctions
	Restrictions
	Punishment Costs
Caring Adults	Social Support- Domains
	Social Support-Diversity
Fairness	Lack of Bias
	Overall Fairness
Anti-Social Peers	Peer Delinquency
	Peer Negative Influences
Services	Mental Health Services
	Vocational Services
Re-Entry Planning	Future Orientation of the Programme

Table 10

Unnamed (Styve, MacKenzie, Gover & Mitchell, 2000) Scale Descriptions

Scale	Description
Control	The security measures exerted over the juvenile's activities within the facility and security to keep the residents in the facility.
Resident Danger	Juveniles perceived risk of being injured by other residents.
Activity	The level and variety of activities available to juveniles.
Care	The quality of interactions between juveniles and between the staff and the juveniles.
Risks to Residents	The risks to the juveniles because of facility conditions.
Quality of Life	The general social environment including the juvenile's ability to maintain a reasonable degree of individuality.
Structure	The formality of daily routines and interactions with staff and other juveniles.
Justice	Appropriateness and constructiveness of punishments given to the juveniles.
Freedom	The choice and provision of activities to juveniles.
Therapeutic Programmes	The availability and utility of therapeutic opportunities.
Preparation for Release	Transition activities with juveniles prior to release.

Appendix 7: COSMIN Checklist and Overall Quality Assessment

Table 11

COSMIN Checklist and Overall Quality Assessment (Mokkink et al., 2018)

Measure	Author and Date	Measurement Properties					
		Box 3. Structural validity	Box 4. Internal consistency	Box 6. Reliability	Box 9. Hypothesis testing for construct validity	Box 10. Responsiveness	
CIES/COPES	Barton & Mackin (2012)	-	-	-	-	Doubtful	Doubtful
	Kohn, Jeger & Koretzky (1979)	Inadequate	-	Inadequate	Inadequate	-	Inadequate
	Ray, Wandersman, Ellisor & Huntington (1982)	-	-	-	-	Adequate	Adequate
	Taylor & Walker (1996)	-	-	-	-	Inadequate	Inadequate
	Towberman (1992)	-	-	Doubtful	Adequate	-	Doubtful
	Towberman (1993)	-	-	Doubtful	-	-	Doubtful
PGCI	Eltink, van der Helm,	-	Very Good	-	Doubtful	-	Doubtful

Wissink & Stams (2015)						
Eltink, Hoeve, De Jongh, van der Helm, Wissink & Stams (2018)	-	Very Good	-	-	-	Very Good
van der Helm, Beunk, Stams & van der Laan (2014)	-	Inadequate	-	Doubtful[22]/ Inadequate	-	Inadequate
van der Helm, Klapwijk, Stams, & van der Laan (2009)	Inadequate	Inadequate	-	Doubtful	-	Inadequate
van der Helm, Matthys, Moonen, Giesen, van Der Heide, & Stams (2013)	-	Very Good	-	Doubtful	-	Doubtful
van der Helm, Stams, & van der Laan (2011)	Inadequate	Very Good	-	-	-	Inadequate
van der Helm, Stams, van Genabeek &	-	Very Good	-	Doubtful[23]/ Doubtful	-	Doubtful

[22] Two ratings of methodological quality are provided for hypothesis testing due to two measures being used within the study.
[23] Two ratings of methodological quality are provided for hypothesis testing due to two measures being used within the study.

	van der Laan (2012)						
	van der Helm, Stams, van der Stel, van Langen & van der Laan (2012)	Inadequate	Very Good	-	Inadequate[24]/ Very Good	-	Inadequate
	van der Helm, Wissink, De Jongh & Stams (2013)	-	Inadequate	-	Doubtful	-	Inadequate
PSCS	Minor, Wells & Jones (2001)	-	Very Good	-	-	-	Very Good
SCS	Heal, Sinclair & Troop (1973)	Adequate	Very Good	-	-	-	Adequate
Unnamed	Mulvey, Schubert & Odgers (2010)	Inadequate	Very Good	-	-	-	Inadequate
Unnamed	Armstrong & MacKenzie (2003)	-	Doubtful	-	-	-	Doubtful
	MacKenzie, Wilson, Armstrong, Styve & Gover (2001)	Doubtful	Inadequate	-	Doubtful	-	Inadequate

[24] Two ratings of methodological quality are provided for hypothesis testing due to two measures being used within the study.

	Styve, MacKenzie, Gover & Mitchell, (2000)	Very Good	Very Good	-	-	-	Very Good

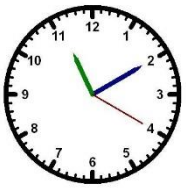
Appendix 8: Study 1 Young Person Participant Consent Form

My name is Lauren and I am inviting you to take part in a project. I want to find out what you think about 'prison climate'/ 'prison environment'. People have defined climate in different ways, but it's agreed it's linked to how a prison feels/ the 'overall' feel of the prison and is dependent on lots of different things. The idea of this interview is to try and understand what sort of things you think are important to prison climate. I am a Forensic Psychologist who is chartered with the British Psychological Society (BPS) and registered with the Health Care Professionals Council (HCPC). I conduct my work in accordance with the BPS and HCPC professional codes of conduct. I am doing this project as part of my work for Nottingham Trent University where I study. I am asking you to join in because you currently live in one of the Young Offenders Institutes (YOI) so you can tell me what it is like.

What will be involved?

- We will meet at a date/time that is convenient for you.
- I will be asking you questions about the things that make a good or bad prison climate.

How long will it take?



- Our meeting will take around 1 hour.
- You can take a break if and when you need one.

What else do I need to know?

- You are not being tested, there is no right or wrong answer.
- I will record our conversation on a Dictaphone and then type up what we both have said.
- Once I have typed up our conversation, I will delete the recording.
- Everyone's answers will be put together and a report written.
- Your will not be identified in the report.
- If you tell me something that suggests either you or others are at risk of harm, is a security risk or in the public interest to divulge e.g. evidence of criminal activities that have not come to the attention of the police, I will share this information with the relevant departments straight away and where appropriate the parties concerned will be identified.
- If you change your mind about taking part at any time just tell me. You can do this by contacting Lauren Aspey in the Psychology Department via the prison application system or speaking with any member of staff who can contact me on your behalf via telephone or email. I will then remove and destroy our typed conversation. However, if you contact me after the **31st August 2019** you will not be able to withdraw as the report will be written.

What if I say no?

- It is your choice and you do not have to take part.
- Saying no has no impact on your sentence, IEP level etc.

What it I need support after taking part?

It is hoped that taking part will not upset you in any way. If you do however feel you need support afterwards please ask to speak with a member of staff, your CuSP officer or a member of the Interventions and Psychology Team. You can also speak with Lauren who is a member of the Psychology Team.

What I am agreeing to….

- I understand I am being asked to take part in a project.
- I understand I am being asked to engage in a conversation with Lauren
- I have had the opportunity to ask any questions
- If I am under 16 years old, I understand my parents/carer will be asked before I can take part.

Name: …… Age: ……

Signed: ……

Date: ……

Researcher:

…….

Signed:……..……

Date: ……

OR

I have decided that I do not want to take part in the project.

Name: ……..…

Signed: ……..…….. Date:…..……

Reasons for this choice:

…….

……

Appendix 9: Interview Schedule

Background information

1. How old are you?
2. How long have you been in the YOI?
3. Have you been here before?
4. Have you been in any other YOIs on this sentence or a previous sentence?

Interview questions

When talking about prison climate different people have defined it in different ways but its agreed it's linked to how a prison feels/ the 'overall' feel of the prison and is dependent on lots of different things. The idea of this interview is to try and understand what sort of things you think are important to prison climate.

1. What sort of things did you immediately think about when I described 'climate' to you?
2. What other things do you think we should be talking about when we consider prison 'climate'?
3. What makes a prison climate good or better? (use of probes to explore answers e.g. why is that important, why do you mention that, any examples)
4. What makes a prison climate bad or worse? (use of probes to explore answers e.g. use of probes to explore answers e.g. why is that important, why do you mention that, any examples)
5. What is the impact of there being a good climate? (use of probes to explore answers e.g. How does it affect you, other young people, staff?) (If no impact why not?)
6. What is the impact of there being a bad climate? (use of probes to explore answers e.g. How does it affect you, other young people, staff?) (If no impact why not?)
7. if not mentioned, explore safety/security (Have you ever thought about safety/security, what does that mean, what impact does that have on a good climate, what impact does that have on a bad climate, explore why they didn't mention it)
8. if not mentioned, explore the phrase rehabilitative/therapeutic environment (Have you heard of the phrase rehabilitative/therapeutic environment, what does that mean, what impact does that have on a good climate, what impact does that have on a bad climate, explore why they didn't mention it)

Appendix 10: NRC letter

National Research Committee
[redacted] National.Research@NOMS.gsi.gov.uk

FINAL APPROVAL

Ref: 2019 – 027, 2019 – 106

Title: An exploration of the concept of climate within Youth Custody (Working Title).

Study 1 Title: Essen Climate Evaluation Schema (EssenCES) Questionnaire pre-test.

Study 2 Title: An exploration if/how existing conceptual frameworks of climate are relevant to adolescents in secure settings. **Error! Bookmark not defined.**

Dear Lauren Aspey,

The National Research Committee (NRC) is pleased to provide final approval for both of your research applications (2019 – 027, 2019 – 106).

To note that approval is subject to both studies adopting the approach as set out in your correspondence providing further information that we received on 15 March 2019. Any clarification or changes to Study 1 relating to sampling, consent form amendments, data handling and data protection should also be applied to Study 2. In addition, the terms and conditions below will continue to apply to your research project.

Please note that unless the project is commissioned by MoJ/HMPPS and signed off by Ministers, the decision to grant access to prison establishments, National Probation Service (NPS) divisions or Community Rehabilitation Company (CRC) areas (and the offenders and practitioners within these establishments/divisions/areas) ultimately lies with the Governing Governor/Director of the establishment or the Deputy Director/Chief Executive of the NPS division/CRC area concerned. If establishments/NPS divisions/CRC areas are to be approached as part of the research, a copy of this letter must be attached to the request to prove that the NRC has approved the study in principle. The decision to grant access to existing data lies with the Information Asset Owners (IAOs) for each data source and the researchers should abide by the data sharing conditions stipulated by each IAO.

Please note that a MoJ/HMPPS policy lead may wish to contact you to discuss the findings of your research. If requested, your contact details will be passed on and the policy lead will contact you directly.

Please quote your NRC reference number in all future correspondence.

Yours sincerely,

[redacted]

National Research Committee

Appendix 11: NTU Research Ethics Committee Email

Message sent on behalf of the Chair of the College Research Ethics Committee

Dear Lauren

Thank you for the recent resubmission of your application (no. 2019/54) to the College Research Ethics Committee (CREC) on 04 May 2019 requesting ethical clearance for the project entitled: *An Exploration of Climate within Children and Young People's Secure Settings.*

We are pleased to inform you that the Committee were happy to confirm that in its judgement there were no further outstanding ethical concerns that required further discussion or exploration prior to data collection and the reviewers are satisfied that your resubmission now meets with their ethical approval.

The Committee would like to wish you well in the completion of your project.

Sent on behalf of [redacted]
Chair CREC

Appendix 12: Proposed Conceptual Framework of Climate

Table 12

Proposed Conceptual Framework of Climate

Overarching Theme	Theme	Subthemes
1. Staff	1A. Staff Qualities	I. Confidence II. Supportiveness III. Trustworthiness VI. Judgment V. Caring VI. Professionalism VII. Antagonistic
	1B. Staff Approaches	I. Effective Communication Style II. Understanding of Working with Children III. Follow Processes Correctly
2. Violence and Safety	2A. Use of Violence	
	2B. Perceptions of Safety	
	2C. Responses to Conflict	
3. Relationships	3A. External Relationships	
	3B. Relationships between Children	
	3C. Relationships between Children and Staff	I. Staff Having Time to Develop Relationships with Children II. Relationship Characteristics III. Opportunity for Personal, Dedicated Relationships
	4. Resources	I. Food II. Room Facilities III. Security Measures IV. Access to Sleep
	5. Regime	I. Access to a Regime II. Access to Exercise III. Access to Visits IV. Access to Education V. Access to Free Time VI. Provision of Activities
	6. Punishments and Rewards	I. Excessive Use of Punishment II. Positive Behaviour is Not Recognised

		III. Rewards are Not Proportionate IV. Timeliness of Punishment/Reward V. Consistency of Punishment/Reward
	7. Inclusion	
	8. Future Orientation	I. Opportunity to have positive goals II. Opportunity to discuss goals III. Opportunity to achieve goals

Appendix 13: MQPL Scales and Scale Descriptions

Table 13

MQPL (Liebling & Arnold, 2002, 2004) Scale Descriptions

Dimension	Scale	Description
Harmony	Entry into Custody	Feelings and perceived treatment on entry into the prison
	Respect/Courtesy	Positive, respectful and courteous attitudes towards prisoners by staff.
	Staff-Prisoner Relationships	Trusting, fair and supportive interactions between staff and prisoners.
	Humanity	An environment characterised by kind regard and concern for the person, which recognizes the value and humanity of the individual.
	Decency	The extent to which staff and the regime are considered reasonable and appropriate.
	Care for the Vulnerable	The care and support provided to prisoners at risk of self-harm, suicide or bullying.
	Help and Assistance	Support and encouragement given to prisoners for problems including drugs, healthcare and progression.
Professionalism	Staff Professionalism	Staff confidence and competence in the use of authority.
	Bureaucratic Legitimacy	The transparency and responsiveness of the prison/prison system and its

		moral recognition of the individual.
	Fairness	The perceived impartiality, proportionality and legality of punishments and procedures.
	Organisation and Consistency	The clarity, predictability and reliability of the prison.
Security	Policing and Security	Staff supervision and control of the prison environment.
	Prisoner Safety	The feeling of security or protection from harm, threat or danger.
	Prisoner Adaptation	The need or pressure to get involved in trade and allegiances.
	Drugs and Exploitation	The level of drugs, bullying and victimization in the prison environment.
Conditions and Family Contact	Conditions	The extent to which living conditions are considered decent.
	Family Contact	Opportunities to maintain family relationships.
Well-Being and Development	Personal Development	An environment that helps prisoners with offending behaviour, preparation for release and the development of their potential.
	Personal Autonomy	Prisoners' feelings of agency and self-determination.
	Well-Being	Feelings of pain, punishment and tension experienced by prisoners.
	Distress	Feelings of severe emotional disturbance.

Appendix 14: EssenCES Scales and Scale Descriptions

Table 14

EssenCES (Schalast & Tonkin, 2016a) Scale Descriptions

Scale	Description
Therapeutic Hold	The extent to which the climate is perceived as supportive of patients' therapeutic need.
Experienced Safety	The level of perceived tension and threat of aggression and violence.
Inmates Cohesion	Whether mutual support of a kind typically seen as characteristic of therapeutic communities is present.