

# Female Gamers' Experience of Online Harassment and Social Support in Online Gaming: A Qualitative Study

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**Abstract** Female gaming is a relatively under-researched area, and female gamers often report experiencing harassment whilst playing online. The present study explored female experiences of social support while playing online video games, because of the previous research suggesting that females often experience harassment and negative interactions during game play. Data were collected from an online discussion forum, and comprised posts drawn from 271 female gamers. Thematic analysis of the discussions suggested that a lack of social support and harassment frequently led to female gamers playing alone, playing anonymously, and moving groups regularly. The female gamers reported experiencing anxiety and loneliness due to this lack of social support, and for many, this was mirrored in their experiences of social support outside of gaming. The female gamers frequently accepted the incorporation into their gaming of specific coping strategies to mitigate online harassment, including actively hiding their identity and avoiding all forms of verbal communication with other players. These themes are discussed in relation to relevant research in the area, along with recommendations for future research and consideration of possible explanations for the themes observed.

**Keywords** Female gaming · Social support · Female mental health · Online harassment · Anxiety · Loneliness

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## Introduction

It is now recognised that female gamers often report the experience of harassment and other negative behaviours while playing online (Cote 2015; Gray et al. 2017; Holz Ivory et al. 2014; McLean and Griffiths 2013; Vermeulen et al. 2014). Yee (2006) has argued that online games promote sociability, communication, and collaboration amongst players. Furthermore, much research has pointed to the importance of social elements of gaming in terms of motivation and engagement in play (e.g. Dalisay et al. 2015; Domahidi et al. 2018; Longman et al. 2009; Zhang and Kaufman 2016). This emphasis on social partners in gaming implies that depending on who players encounter each time they enter the gaming world, their experience will vary. This uniqueness of each person's experience means that there is substantial scope to consider the experience of females in gaming if they are predominantly experiencing particular types of social interactions during their gaming.

Bowman et al. (2015) noted that online videogame play has long been understood as an entertaining medium for many, and that an important element of their appeal is in their ability to foster feelings of sociability and belonging with others. Social support is one of the most significant benefits from social relationships, and is an indicator of one's relationship quality and psychological wellbeing (Cohen et al. 2000), and so an understanding of the impact of gaming on social support remains paramount. In a recent longitudinal study exploring the impact of gaming on social outcomes, Domahidi et al. (2018) reported the differences between three dimensions of social relations: social ties (antecedents), social capital (resource), and social support (outcomes). Social ties refer to individuals' interpersonal connections which lead to the generation of social capital and the development of social support.

Much of the previous research on online gaming has predominantly used male participants. However, research has highlighted the negative interactions that female gamers sometimes experience. This suggests that the female online gaming experience may be significantly different to the findings from previous research. There is a need to develop a greater understanding of the experience of females, and the influence of these online social interactions on further play but on also on their lives overall. The present research therefore explores the types of relationships and interactions that female gamers experience online as part of their gaming experience and how actively involved females are in the social element of gaming. Treppe et al. (2012) have suggested that social ties are developed in online gaming via social interactions that occur outside of gaming and competing, and it is important to understand the level of involvement female gamers are experiencing in gaming. The present research extends previous research in the area of gaming, and considers the implications of social interaction in gaming for female players. Online gaming has been viewed as a predominantly a male activity. However, recent data suggests that almost half of those who play videogames are female (United Kingdom Interactive Entertainment 2016). Therefore, a greater understanding is valuable to understand their experience in gaming, and the potential impact of the experience on them.

## Social Support

Social support can be described as a multidimensional concept and is directly related to the characteristics and functions of social relationships (Lourel et al. 2013). According to House et al. (1988), social support is an interpersonal event that takes place in multiple dimensions, related to emotional, instrumental, information, and esteem supports. Cohen (2004) describes

social support in terms of similar dimensions but with the addition of structural support (the size and extent of an individual's social network and frequency of social interactions) and functional support (an individual's perception that social interactions have been beneficial in meeting emotional or instrumental needs).

According to Semmer et al. (2008), social support is best viewed in terms of instrumental supports, the actual helping behaviours that people offer to another person, while emotional support is the reassurance or emotional support offered to reinforce sense of worth and feelings of self-efficacy. Thoits' (2010) description of social support makes reference to emotional, informational, and/or practical assistance from significant others, and argues there is a distinction between actual support that is received from others or simply perceived to be available when needed. The effectiveness of social support for each individual is said to depend on the match between the source, type, and timing of social support and the needs of the individual (Cohen and McKay 1984; Cutrona and Russell 1990; Jacobson 1986).

The structural aspect of social support refers to social integration (involvement in society based on social roles and identities) and social networks (individuals or support available to a person), while the functional aspect refers to the various support functions that relationships can provide. The present study is interested in the functional aspect of social support in terms of social support that gamers perceive to be available to them. To account for the complexity of human needs and interactions, numerous dimensions of perceived social support have been developed (e.g. House et al. 1985; Langford et al. 1997). However, the most common elements relate to the perception of support available and involves two dimensions of support—emotional and instrumental support (Trepte and Scharkow 2016)—which are both primarily provided by strong social relationships.

Therefore, perceived support refers to the perception that support would be available if needed, as well as an individual's perception from whom they could seek support (Day and Livingstone 2003). Bolger et al. (2000) concluded that an individual does not have to experience social support physically but only has to sense that support is available to benefit from social support effects. Park et al. (2013) further suggest that perceived support relates to past experience and the perception that an individual has received such emotional support such as compassion and encouragement from others. Perceived social support is therefore subjective and linked to past experiences, and as the present study is interested in the lived experiences of the female gamers, this appears to be the most relevant element of social support to explore.

## Social Support and Health

There is substantial evidence to indicate that social support is essential for maintaining physical and psychological health (Cohen 2004; Cohen et al. 2000; Holt-Lunstad et al. 2010; House et al. 1988; Uchino et al. 2012). The structure of social networks (Brissette et al. 2000), the support individuals receive from others (Cohen et al. 2000), the quality and quantity of social interactions (Kiecolt-Glaser and Newton 2001), and feelings of isolation and loneliness (Cacioppo et al. 2009), have all been identified as major predictors of health and wellbeing. Supportive social support networks are therefore argued to be integral to promoting both physical and mental health outcomes.

It has also been argued that social support can act as a buffer for the effects of stress on psychological distress, depression, and anxiety (Cohen and Wills 1985; Kawachi and Berkman 2001). Both instrumental and emotional support have been found to be valuable aspects of the coping process for those who are faced with chronic and acute stress (Semmer et al. 2008).

High levels of social support are also related to lower perceptions of stress, less stress exposure, and lower depression (Sarason et al. 1990; Russell and Cutrona 1991). Perceived social support has the potential to provide a buffer in times of stress, increase happiness, and enhance psychological wellbeing (e.g. Barrera 1986; Cohen and Wills 1985; Winemiller et al. 1993). Day and Livingstone (2003) suggest that one's perception of their social support network has an essentially greater coping effect than if they actually receive the support, suggesting the importance of understanding each person's individual perception of their social networks and relationships in all aspects of life.

### **Social Support and Online Interaction**

Internet interaction has been positively associated with the development of social support (Ellison et al. 2014; Kim 2014; Olson et al. 2012; Steinfield et al. 2008). Recent research by Pendry and Salvatore (2015) with female participants argued that online interactions can foster rather than hinder offline engagement because it fosters individual wellbeing. Active internet users have been found to be more likely to use other communication tools, to have frequent face-to-face conversations (Baym et al. 2004), and to have contact with a greater number of people (Wang and Wellman 2010). A study by Olson et al. (2012) suggests that while face-to-face friends offer higher levels of social support across all three types (emotional, informational, and instrumental), online friends augment the support provided through these three types of social support. In terms of the type of social support provided by others in online settings, Ko et al. (2013) proposed that the most common types of social support provided online include validation of views, compliments, and encouragement to others. The level of use of online interaction has been argued to contribute to the experience of online social support to a greater extent than the number of strong ties an individual has (Kim 2014). However, many females have reported the experience of receiving disproportionate attention in online interactions, particularly of a sexual nature, in comparison to males (Herring et al. 2002).

### **Social Support and Online Gaming**

Research exploring social interactions and relationships in gaming has examined the role of social factors as both motivating factors and as an outcome. Initial research assumed that online interactions were not suited to generate offline social support, and potentially impacted negatively on relationships offline (Miyata and Kobayashi 2008; Pollet et al. 2011). The development of online gaming communities and collaborative gaming environments has led to extensive research on the impact of these games on social support. While early research focused on the impact of gaming on offline relationships and activities (particularly the displacement hypothesis), more recent research has recognised the positive impact of gaming on social support, in terms of the development of social ties online and offline, social capital, social identity, and civic engagement.

Social factors in gaming have been argued to be central motivating factors for gamers (Jansz and Martens 2005; Yee 2006; Przybylski et al. 2010). Online gamers and in particular those who play massively multiplayer online role-playing games (MMORPGs) have been found to seek out interactions with others (Voulgari et al. 2014). Rogers (2017) recently suggested that games that emphasise social elements lead to relatedness. Recent studies have indicated the development of online social ties with others via online gaming (Blinka and

Mikuska 2014; Domahidi et al. 2014), with Zhang and Kaufman (2016) suggesting—contrary to other research emphasising this effect with younger gamers—older adults also develop significant friendships online while gaming. Kaye et al. (2017) suggest there are psychosocial benefits of online engagement, specifically in relation to identifying and connecting with others in MMO games. Trepte et al. (2012) argue that there is a need for gamers to engage with others in online activities outside of gaming to allow for the development of strong ties with other gamers. Familiarity between gamers and engagement in any kind of game-management or team-management led to the development of greater social support in both settings, in online as well as offline settings in this research.

Players have also been found to extend their offline social ties via online game play with offline friends (Domahidi et al. 2014; Eklund and Roman 2017) and to transfer in-game experiences to their social networks outside game play (Domahidi et al. 2014; Snodgrass et al. 2011; Trepte et al. 2012). In line with this, Granic et al. (2014) proposed that the social contexts of online games means that gamers are learning social skills which are transferable to their relationships outside of the gaming environment. Domahidi et al. (2014) longitudinal research suggests that online gaming does not impact offline friendships negatively and that gaming-related friendships do not impact social outcomes, as measured by emotional and instrumental social support (Domahidi et al. 2018). The research suggested that playing online games together might be important as a bonding activity for some individuals to share with close friends.

Consequently, the research suggests that for some players, social online gaming could help to strengthen pre-existing friendships (Cole and Griffiths 2007; Williams 2006). Emotionally sensitive (i.e. shy) game players have been found to have significantly more online friends than less shy players, suggesting that they are more likely to use online gaming spaces to overcome their offline social limitations (Kowert et al. 2014). The motivations to develop social ties via gaming was further highlighted by Domahidi et al. (2014) in a relatively large sample ( $N = 2213$ ) suggesting that people with social capital motives were more likely to meet online friends in offline settings than those motivated by other factors. Putnam (1993) defined social capital as the social networks, social trust, and norms of reciprocity that are developed in relationships and organisations. Dalisay et al. (2015) suggest that social motivation to play is associated with social capital (social trust and neighbourliness) in college students.

Recent research has examined the impact of social relationships developed in online gaming environments. Kobayashi (2010) found that online communities developed via gaming led to increased social tolerance in a group of online gamers in Japan. Online game players have been found to report less loneliness and social anxiety (Martončík and Lokša 2016) and greater positive mood after social online game play compared to playing alone (Kaye and Bryce 2014). More recent research (Kaye et al. 2017) found further evidence that relationships with other players related to aspects of psychosocial wellbeing, although the games used may not be the most relevant for exploring friendship and gameplay (e.g. *FIFA Football Manager*) and the majority of players played alone in both settings.

Further exploration of the level of social relationships and the social support which are developed via these relationships in online gaming has suggested a role for various elements of social support. An online survey by Longman et al. (2009) reported a relationship between game engagement and level of support achieved, as well as noting the use of these relationships for social support, seeking advice about gaming and offline issues, and for emotional support. In later research, O'Connor et al. (2015) conducted qualitative interviews with online

gamers and suggested that these relationships are frequently used for social support and information and emotional support.

## Female Gaming Research

Research into gaming has mainly focused on male gamers, across different age groups. In the majority of these studies, the participants have been mainly men with less than 30% of females represented in the samples. A number of topics have recently been explored in relation to the female gaming experience. These are mainly related to the experience of female gamers in online environments, as a minority growing population. Previous research has highlighted the role of gaming in female gamers' lives and the possible growth in interest in online gaming for females as they play alongside significant males and family members (Lewis and Griffiths 2011; McLean and Griffiths 2013).

Early research in the area examined gender differences in online gaming social interactions (Taylor, 2003) and suggested gender differences in social motivations (Cole and Griffiths 2007; McLean and Griffiths 2013; Yee 2006). Researchers have argued that these gender differences may be related to socialisation factors, videogame design, and/or gender differences in terms of skills (Cole and Griffiths 2007; Hartmann and Klimmt 2006; Möller and Krahé 2009; Lucas and Sherry 2004; Olson et al. 2009). In terms of the development of social relationships, female gamers have highlighted the peripheral communication occurring outside of actual gaming as being important for them, for example, in the sharing of gaming experiences with significant people in their lives and meeting like-minded people on discussion forums (Lewis and Griffiths 2011; McLean and Griffiths 2013).

Women are typically perceived as a minority in online gaming spaces, and the research has consistently suggested that they often experience general and sexual harassment from other players (Ballard and Welch 2017; Chess and Shaw 2015; Fox and Tang 2014; Gray 2012; Salter and Blodgett 2012). The recent survey of Fox and Yeng Tang (2017) on women's experience with online videogames found this often led to rumination about the harassment, perceptions of organisational unresponsiveness to issues, and withdrawal from the game. Women reported specific coping strategies to mitigate harassment, including hiding their identity, avoiding communication with other players, and seeking help or social support inside and outside the game.

Ballard and Welch (2017) reported that women and lower-performing online game players were the groups more likely to experience negative reactions from male players. Male gamers were more likely to perpetrate cyberbullying than females do. Furthermore, female and LGBT participants experienced significantly higher rates of sexually related cyber-victimisation, and reported the behaviour occurred regularly. The research was conducted with self-selected online gamers, with a small number of female gamers (110 males, 36 females, and 5 transgenders/others). The most common reason cited for engaging in negative behaviour was related to ranking of gaming achievements. Cote's (Cote 2015) qualitative study with female gamers suggested that they were skilled at managing such negative interactions online but said female gamers hiding their contributions to gaming may provoke further harassment.

Because online gaming is mainly based on collaboration and communication, a number of recent studies have examined the role of verbal communication and the link to identification of gender. Previous research has indicated that female gamers can be reluctant to speak to other gamers because it can lead to negative interactions (McLean and Griffiths 2013). Kuznekoff and Rose (2013) confirmed this experience in an experiment, with female voices more likely to

receive negative attention than male voices in gaming situations. The research examined how gamers reacted to female versus male voices in an online game. Using statements designed to be neutral and inoffensive, female voices were found to receive considerably more negative reactions, resulting in three times more negative comments than male voices. Gray (2012) found that linguistic profiling was common in online gaming. Players reported frequent derision and harassment, typically featuring sexist, racist, nativist, and heterosexist language once they started communicating verbally with other players. Exploring the impact of gender further, Holz Ivory et al. (2014) found in an experimental study that women in gaming who made positive utterances gained more compliance with friend requests than women making negative utterances, whereas men making negative utterances gained more compliance with friend requests than men making positive utterances.

Researchers have been interested in why this stereotype (threat) may be so prevalent in online gaming, and its further potential impact on female gamers. Holz Ivory et al. (2014) argued that sex role stereotyping by players in other online gaming environments may encourage a social environment that alienates female players. The researchers propose that individuals' interactions in first person shooter (FPS) videogames are guided by some of the same stereotypes that also shape the nature of individual's non-mediated, everyday interactions. In a virtual field experiment ( $N = 520$ ) using an online FPS videogame, they found that in general, women gained more compliance with friend requests than men. The researchers argued that their findings indicated that although women are helped more frequently than men, they are still expected to behave according to the traditional expectations associated with their offline sex. This study was based on initial online interactions, rather than ongoing interaction that develop over time through gaming.

Because videogames are popularly perceived and reiterated as a male space (Hartmann and Klimmt 2006; Salter and Blodgett 2012), it has been argued that male gamers are often afforded higher status and higher perceived competence than female gamers (Kaye and Pennington 2016). Although women are often able to remain hidden or anonymous in gaming environments (Cote 2015; McLean and Griffiths 2013), it is likely that when women reveal their sex, their legitimacy and competence are questioned. In addition, players report that less experienced/lower-ranking players, women, and gay players often receive a hostile reaction from male gamers (Fletcher 2012; Kasumovic and Kuznekoff 2015; Salter and Blodgett 2012). Thus, rank—or status in the game—is one factor that might predict negative interactions as well as gender.

Recent research has explored factors that may be associated with this experience of videogame sexism (Fox and Tang 2014). The findings indicated that social dominance orientation and conformity to some types of masculine norms (desire for power over women and the need for heterosexual self-presentation) predicted higher levels of sexist beliefs. Vermeulen and Looy (2016) argued that stereotype threat undermines the gaming experience of females. In a controlled laboratory experiment, the researchers tested the effects of reinforcing stereotypical information suggesting that women are less competent players versus the effects of countering this stereotype. They found that gamer identity, trait competitiveness, and playing habits impact the experience of social identity threat. A study by Kaye and Pennington (2016) further indicated the negative impact of stereotype threat on females' experience of gaming, and found that it led to females' underperformance on the gaming task, relative to males in the control condition. Similar findings have been reported with impact on females' skill perception and wellbeing (Vermeulen et al. 2014), and performance (Vermeulen and Looy 2016).

McLean and Griffiths (2013) argued that female gamers valued their identity as gamers, but paradoxically, gamers often feel the need to hide their identity when gaming online, due to the behaviour of other male gamers (Cote 2015; Vermeulen et al. 2017). Kaye and Pennington (2016) suggested that multiple social identities may protect females' gameplay performance from stereotype threat. Females have also reported lower gamer identity because they felt less connected and discouraged from this identity by male negative behaviour online. This suggests that female gamers often exist outside of the main game culture, resulting in a low gamer identity profile (Vermeulen et al. 2017). The experience of discrimination by male players is therefore argued to discourage women to label themselves as gamers. Based on the literature outlined above, the present qualitative study was exploratory and had a number of aims. These were to (i) explore the level of social support experienced by female gamers during gaming, (ii) identify the impact of this experience on female gamers, (iii) examine females' understanding of the cause of social support (or lack of) in online gaming, and (iv) explore strategies female gamers use to develop social support in their gaming.

## Methods

### Data Collection

The data were collected from a public online discussion forum intended for female gamers. This type of data collection is increasingly being used in social sciences and provides rich stand-alone data in which the researchers are unable to bias in any way (Griffiths et al. 2015). After surveying various different online gaming forums, one particular website was chosen for analysis as it was predominantly used by female gamers who played a variety of different genres of games. The posts reviewed were those made during the period February 2018. All discussions in which there were comments posted during a one-month period were considered during the initial analysis of the discussion forum. There were 251 gaming-related discussions on the forum during the month, and of these, 21 discussions were analysed. These forums were chosen for further analysis because they made reference to online interactions or relationships in the title of the discussion or in the opening comments on the discussion thread. The number of posts within each discussion ranged from 12 to 167. Within each discussion, the length of the posts ranged from a one-line reply to a 31-line reply. Each of the posts were considered as a separate unit of data and there were 1043 number of posts in total. All quotes are followed by a post number rather than a participant number. The quotes were generated by a total of 271 female gamers.

### Ethical Issues

It has been argued that participants in online forums cannot have expectations of privacy as they are freely accessible to the public (Denzin 1999; Watson et al. 2007). All of the data in the present study were posted on an online forum in the public domain, and usernames and passwords were not needed to access the site. However, similar to previous research with online discussion forums (Convery and Cox 2012; Holmes 2009; McLean and Griffiths 2013), measures were included to protect individuals from harm and so individuals' anonymity and any specific details of the website are not disclosed and the comments made are identified by a pseudonym only. The researchers did not participate in online communication or online



interviews on the site. All names and identifying information have been changed to ensure confidentiality of all people who posted on the site.

## Rationale and Justification for Using Thematic Analysis

Given the qualitative nature of the data collected, thematic analysis was chosen to analyse the data collected because of its flexibility and depth in allowing for an exploration of participants' feelings and motivation (Clarke and Braun 2013). The posts were considered as a whole rather than as different sub-topics, so that each discussion was analysed under each of the themes. Following initial familiarising of all data, the discussions were read and responses were collated under main themes, and allocated provisional labels. Responses were then re-read and further sub-themes were identified, and the initial themes redefined. This analysis was structured by the research questions, with the central themes (see Fig. 1) serving as a framework for analysis of all of the discussions. The responses were explored for both actual and semantic meaning, allowing for the development of more meaningful and rich data to be analysed. The semantic approach to data analysis examined the themes that were observed and at times looked beyond the observations and theorised possible reasons and implications for the themes, in order to allow a more comprehensive exploration of the female gamers' experiences of social support in online interactions, and any links to offline support and/or relationships.

## Results

There were four main themes with a number of sub-themes which developed out of the main themes (Fig. 1).

### Theme 1: Experience of Social Support in Gaming

Rather than a focus on social support, there was a common theme of female gamers discussing avoiding negative experiences and harassment while playing online. A number of the gamers ( $n = 18$ ) stated they had gotten to the point of preferring to play alone than dealing with negative experiences. For instance:

“Better to play alone than subjecting myself to potential toxicity” (post number 185)

The majority of female gamers stated that they had encountered incidences of negative interactions in different gaming environments in the past. There was a common theme of females having experienced numerous incidents of male harassment ( $n = 73$ ), including sexual harassment ( $n = 24$ ) and verbal aggression directed at them during gaming ( $n = 44$ ), and for some the experience of being stalked by males online ( $n = 5$ ) and offline ( $n = 2$ ). Within these

Experience of social support	Impact of lack of social support	Perception of cause	Strategies
<ul style="list-style-type: none"> <li>• Lack of instrumental Support</li> <li>• Lack of emotional support</li> <li>• Lack of perceived support</li> </ul>	<ul style="list-style-type: none"> <li>• Stress/Anxiety/Insecurity</li> <li>• Feeling pressure (Internal &amp; External)</li> <li>• Hiding identity</li> </ul>	<ul style="list-style-type: none"> <li>• Stereotype threat</li> <li>• Group behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Silent, transient gamer</li> <li>• Building networks</li> </ul>

**Fig. 1** Four main themes

discussions, there was continued reference to the “toxic environment of gaming” and the negative impact this had on them individually and on their gaming experience:

“[Gaming is now] a pretty lonely experience” (post number 89)

“Comments are running my gaming experience” (post number 67)

### *Lack of Instrumental Support*

Female gamers talked about having little experience of other gamers offering advice and helping them with gaming.

“It just turned me off playing with guys because I rarely found friends that were willing to give tips and constructive criticism” (post number 189)

This was not directly linked by females to feelings of inferiority, but as there was a common theme that males were perceived as being more skilled at gaming, there may be an implication that this type of support would be welcomed. Females frequently reported the experience of not having an active involvement in the games and the feeling of not being taken seriously as having a role to play. A number of females ( $n = 12$ ) talked about wanting to have a role in guild activities and in strategy, but a number felt this was not encouraged by other male players, and at times their attempts were ignored or overlooked ( $n = 11$ ):

“Of course [my comments] get down voted, as does every comment I add” (post number 163)

“Usually don’t respond to me when I say something or they straight up just talk over me” (post number 89)

“Trying to give the role that I’ve selected to someone else in the group” (post number 172)

“Had a member who was assigned to my raid team, asked me my gender, once he found out I was a girl, he refused to listen to any advice, commands, or suggestions during raids and always fact checked me against other men in the group” (post number 227)

There were a number of discussions ( $n = 8$ ) where women talked about their own fear of getting actively involved and their reluctance to get involved. Female gamers consistently talked about hiding their identity when playing and not getting actively involved due to feeling inferior in terms of gaming ability, and the potential for ridicule from others based on previous online gaming experience. The female gamers also talked about the fear of being seen to have been “carried” by other players, when they had done well and the implication they felt was that other male gamers did not believe they could do well on their own. A number of females ( $n = 5$ ) also expressed concern that they would be perceived as being carried if they asked for assistance during game play, and this prevented them from seeking support from teammates.

“It felt like the whole time I played, I was trying to represent that girl gamers don’t need to be carried and if I lost, I failed my whole gender” (post number 178)

“Instead of trying to help me get better at the game they would offer to carry me instead” (post number 193)

### *Lack of Emotional Support*

The discussions on the experience of female gaming highlighted a lack of emotional support from male players they were playing with. This was reported to occur frequently during game play with other male players. For instance:

“When you do well it’s at the most low-handed comments ...you are one of the better female players I know” (post number 178)

“[I was always] referred to as “what’s her name” or “the new girl”—they couldn’t even be bothered getting to know my name” (post number 89)

“The dudes would never include me in important decisions regarding say, creations of maps and main story points in our private website role-play, including things like...not bothering to ask me my opinion on what place in my country would make a good place for something realistically...they only thought to ask the other men who didn’t live there” (post number 211)

This was also reported by players to occur when they discussed their negative online experiences outside of gaming with male friends:

“I play with a group of guys and they can be very ignorant of how gender based jokes and shit like that can burn out their girl gamer friends” (post number 250)

“Frustrates me that men I bring this up with will totally deny there is a problem” (post number 193)

### *Lack of Perceived Social Support*

There was *almost a feeling of acceptance* amongst the female players that they should play alone, with a common theme of women giving up gaming with others and of developing social support in online gaming. They frequently mentioned attempting to find an ally and someone to stand up to the inappropriate behaviour of others. The females also expressed disappointment that male players did not stand up for them when others acted in a negative way towards them, again indicating a lack of support within many of the gaming environments. There were a number of posts ( $n = 26$ ) where females expressed their surprise that other women in gaming acted in a negative way towards other female gamers. Many of the females reported experiencing this and felt that for some women they behaved in this way as they wanted to be the only female in a male-dominated game. The discussion highlighted that for a large amount of female gamers this led to them choosing to play alone.

A common theme in the discussions was the view that some games and platforms were harder for female gamers to play on and that this might get easier for some female gamers as they got older. Often this was attributed to internal characteristics of the female gamers, however, as they felt that this was not an issue that they were as concerned about as they got older, although it had caused them anxiety and stress when they were younger. Many of the gamers suggested to others that the most effective strategy was to play by oneself. They talked about how they had adopted this strategy to allow long-term play and to avoid negative experience due to the feeling of lack of social support. For instance,

“I do miss playing competitive games with friends so one day I’ll start something new. I just hope I find kinder friends to play with!” (post number 178)

Many of the female gamers were accepting of this lack of support and negative behaviour, although a number ( $n = 11$ ) argued that it was important to fight against this or the social environment for female gamers would not change.

“It’s like we can’t be proud of who we are. Worst of all, I feel like it adds to the fact that there aren’t female gamers online, it could be that we are hiding or pretending we’re not for the sake of keeping the fun for ourselves” (post number 191)

A number of females talked about the difficulty they experienced developing friendships online ( $n = 16$ ), and some associated this lack of social support in online gaming to their lives offline ( $n = 12$ ).

“I’m even having trouble making friends here which is really discouraging for me” (post number 11)

Some female gamers ( $n = 7$ ) discussed the difficulty of making friends throughout their lives, and some outlined how they used gaming as a way to try to develop friendships and social skills when they were younger ( $n = 7$ ). There was a small number of posts ( $n = 10$ ) where people discussed this as being successful and how they made a small number of friends online who they went on to meet up with and develop friendships offline. Some of the female gamers talked about how they predominantly played games alone, although this was not the preferred way to play.

“I would love to make friends that play, but I find it to be a struggle, I don’t know what to do” (post number 10)

## Theme 2: The Impact of Lack of Social Support in Gaming

### *Stress, Anxiety, and Insecurity*

A number of female gamers ( $n = 14$ ) talked about feeling self-conscious about their gaming and how this led to a self-belief that they were not as good as the male players. They discussed the feelings of stress and anxiety that they felt had developed from their experience of negative interactions whilst involved in online gaming ( $n = 24$ ). They talked about how this had a detrimental effect for many on their enjoyment of gaming, and on their lives.

“I quit the game when I realized it was just stressing me out and now I play a lot of single player games to relax” (post number 178)

“Worried all the time are they making fun of my mistakes...maybe doing it in secret if not to my face...it all got too much” (post number 179)

“I’m too much of a coward to play X with my headset, been dying to play competitive but I’m too afraid” (post number 133)

A similar theme that emerged in the discussion was the anxiety that gamers felt when they joined a new group, or when someone new joined their group. The female gamers discussed the anxiety and, at times, fear they felt at these stages as they waited to speak and for people to realise they were female.

“They would talk over and railroad me and completely steer the storyline into whatever they wanted” (post number 212)

Female gamers mainly attributed the anxiety they experienced to others’ behaviour, but for some ( $n = 8$ ), this was attributed to internal characteristics. Some of the gamers felt that they were responsible for some of the anxiety they were experiencing, and discussed social anxiety ( $n = 8$ ), that they were uninteresting to others ( $n = 4$ ), or overly sensitive ( $n = 3$ ). For instance,

“I overthink a lot of what I say” (post number 12)

A number of females ( $n = 18$ ) stated that they played alone to protect themselves from the anxiety they had developed previously in collaborative play, despite it not being as enjoyable. For instance:

“I play single games now to get away from the anxiety of competitive team games, but I do miss competitive games” (post number 180)

“I’m always blaming myself for allowing myself to be a target” (post number 131)

Some of the female gamers ( $n = 6$ ) talked about how this anxiety which developed during gaming had extended into their offline lives and impacted their everyday life. Some of the gamers also talked about the impact of this on their ability to trust others, both within gaming and in their outside lives:

“[I have a] hard time trusting people I met in games and it rolled over into real life. I’m tired of getting hurt” (post number 127)

“But now I have a new insecurity that I don’t need” (post number 67)

### *Pressure on Female Gamers*

**Internal Pressure** A number of female gamers ( $n = 21$ ) talked about how they felt the need to do well in gaming to prove themselves and the negative impact this had on them, and on their eventual enjoyment of the game. A number of females ( $n = 15$ ) talked about times in their life when they had put significant pressure on themselves to excel in particular games and the impact this had on their lives overall, in addition to the enjoyment they got from gaming. For instance:

“I didn’t want to waste my emotional energy trying to find ways to defend myself or proving my gaming skills” (post number 175)

“Later noticed I wasn’t enjoying the game because I was making it more of a mission to prove to them that I wasn’t bad” (post number 176)

A significant theme was that female gamers felt that they were playing as a representation not of their own ability but were representing all female gamers. They discussed the internal pressure they felt they were under to do well, not just for their own sake but also to prove that female gamers as a whole were capable of playing these games.

“I felt like the whole time I played I was trying to represent that girl gamers don’t need to be carried and if I lost I failed my whole gender” (post number 178)

“Feel I am a bad representation of female gamers if I make a mistake” (post number 179)

There was a common theme where female gamers felt that gaming was harder for them than for males. Aside from the negative experiences online, females consistently referred to the internal pressure they felt to overcome the stereotype of the female gamer. For instance,

“If a guy sucks at a game he is bad at that game, if a girl does bad, it’s because she is a female” (post number 185)

This anxiety and pressure to do well were highlighted by a number of female gamers as being felt significantly when they were younger, and they felt that this became less of an issue for them as they got older.

“I thought I needed to prove to others (and to myself). As I got older, got more confidence and self esteem, a good support network, and more mature, I realized I didn’t need to justify my hobbies to anyone” (post number 183)

As many of the female gamers ( $n = 15$ ) talked about moving away from competitive gaming due to these experiences, this could raise the question of how many women are still involved in competitive gaming as they got older.

**Pressure from Others** Female gamers frequently talked ( $n = 23$ ) about how they felt that other male gamers expected them to do badly and therefore felt pressure to prove themselves at all times. There was a common theme of other gamers acting as gatekeepers, expecting females to prove themselves worthy of playing. The female gamers felt that they were required to prove themselves and that their credibility as a gamer was frequently ( $n = 6$ ) called into question during gaming. This was argued to be particularly common when female gamers joined a new team/guild. A common theme was the women talking about proving themselves so that they could use this an example later by illustrating incidences of times they had achieved during gaming. For instance:

“I can drop a line like ‘yeah, I got 1000/1000 [on a game],’ which shuts down any questioning my credibility as a gamer” (post number 185)

Female gamers talked about this need to prove themselves as “good enough” in both online ( $n = 8$ ) and offline settings ( $n = 6$ ). The female gamers discussed examples of times they talked to others about their gaming interests and there was disbelief amongst people that they were a “real gamer” and so they often felt the need to prove their interests and their ability. This often led to females hiding their female gaming identity both offline ( $n = 13$ ) and online ( $n = 13$ ). This constant pressure from others was argued to be a frustrating experience for female gamers. For instance:

“With video games, I also get worried that I won’t be good enough and people will judge me” (post number 12)

“I don’t feel like I’m ‘good enough’ at them to mention them...Like I feel that I’d have to doubly prove myself” (post number 8)

**Hiding Their Identity** There was a significant theme of females disguising their gender through the use of neutral pseudonyms and avatars and in particular of not using their voice online. For the majority of the women, this was an ongoing strategy for them to manage negative behaviour they had encountered previously and anticipated occurring again.

“I’ve almost completely hidden my gender for the past 10 years in online gaming so I could enjoy my hobby” (post number 190)

“Been dying to play competitively but I know I shouldn’t without communicating. I’m too afraid because I’m a girl” (post number 133)

When asked if they were female by other male gamers, a large amount of females talked about how they would deny being female ( $n = 5$ ) or would allow male gamers to believe they were a teenage boy ( $n = 16$ ). The majority of female gamers ( $n = 75$ ) were very accepting of the need to stay silent and to hide their identity and talked about their own acceptance of the need to do this, or recommended it as a strategy to deal with negative behaviour online.

“Games have the functionality to mute people and yourself for a reason” (post number 79)

“Just stop being women, problem solved” (post number 91)

“Every time I activate voice chat in a game, I have to fear a backlash” (post number 164)

A number ( $n = 6$ ) talked about waiting until they trusted their team mates before speaking to them.

“I feel I have to prove myself before I can speak” (post number 67)

In settings outside of gaming, many female gamers ( $n = 13$ ) also spoke about hiding their identity as a gamer. This was attributed to the fact that other people did not understand gaming, but also linked in to the stereotype of gaming they felt was very prevalent in today’s society. In this respect, females talked about the fear of being judged by others as being the same as the stereotype of a female gamer. They talked about being reluctant to admit that they enjoyed gaming to others, unless they were gamers themselves as there was a feeling that people did not understand gaming and what it involved.

“Mentioned gaming a few times but it was never a positive experience” (post number 133)

They talked about how it is still an unusual interest amongst females and particularly amongst the older generation, and this leads to a lack of understanding of gaming and the reasons that females may play. It was also suggested that in offline settings, the stereotype of female gamers is also very negative, and this can also make gamers reluctant to admit to gaming as a hobby.

“I am somewhat embarrassed, simply because of the stereotype associated with girl gaming” (post number 9)

### **Theme 3: Perception of the Cause of Lack of Support in Gaming for Females**

#### *The Stereotype of Female Gamers*

A common theme in the discussions was the feeling that male gamers were responding to the stereotype of female gamers as not being unsuccessful in gaming. For instance,

“There is a ton of pressure on women to be good, much more than there is on men playing” (post number 185)

“I am terrible at FBS multiplayer games but I love to play them because I love playing with my friends so it’s super fun but I suck so bad. I feel horrible that they carry our team most time than not” (post number 8b)

In a similar way to offline settings, the female gamers were eager to avoid being judged as similar to the common stereotype of a female gamer when online. There was some discussion amongst the female gamers of females reinforcing the stereotype by hiding their identity when playing online. A number of female gamers argued that it was up to the female gamers to stand up for themselves in gaming and stop hiding their identities in order for women in gaming to be recognised and accepted in the gaming environment. Most female gamers attributed the lack of support for female gamers to male behaviour online, and there were some who attributed this to their own attributes. A number of females ( $n = 16$ ) suggested that individual factors were the reason that they had difficulty building social supports online, and this was similar to their lives in general.

“Always been difficult for me to make friends both offline and online, let alone find fellow gamer females to build a squad with” (post number 12)

A number of different internal characteristics were suggested for this difficulty that females experienced in relationships and social networks online. A number of the female gamers ( $n = 17$ ) talked about themselves as being shy, anxious, and awkward in online and offline settings.

“I have a very sarcastic, blunt sense of humor that can come off as being disinterested or rude” (post number 15)

“Overthink a lot of what I want to say...so I tend to stay quiet” (post number 12)

“I’m also just an extremely boring person. I mean, often times I don’t talk because I’m shy, but more often I don’t talk because I just don’t have anything interesting to say.” (post number 13)

They discussed the impact of others negative e online behaviour on them and linked this to their past experience of negative interactions with others.

“My self-esteem is already so low so I couldn’t handle talking and then the abuse that would happen” (post number 132)

Another common theme was people wondering if they were being oversensitive when they received such negative attention online, and questioning if they should accept this behaviour from others.

#### *Group Behaviour*

A number of the female gamers ( $n = 16$ ) talked about the difficulty of building networks and support within online groups, rather than within the online environment itself. In this respect,

they talked about how usually male players were supportive and accepting of female players on their own, in a one-to-one setting. The issues female gamers felt appeared within groups, and at times they felt that male players changed their behaviour when in groups. A number of gamers ( $n = 5$ ) felt that there was less likelihood of this negative interactions occurring in smaller groups.

Another common theme was the impact of one new male joining a group, and how the groups' behaviour could change when this gamer commenced acting negatively towards the female gamer. This again tied in with the anxiety that a number of female gamers argued that they felt when a new member joined a group because they waited to see how they would behave towards them. Females ( $n = 8$ ) talked about a similar feeling of anxiety when this occurred, as to when they themselves joined a new group and were required to prove themselves as adequate.

"I feel like I constantly have to prove I'm "good" or else people will just dismiss me" (post number 185)

"Whenever I play with a new group of friends who obviously know I'm a girl, I feel this tremendous pressure to do amazing" (post number 180b)

"I exclusively play with groups of gamers I've built up trust with and if they invite someone new in I'm generally mute" (post number 208)

Some of the females ( $n = 6$ ) felt that all competitive environments were similar to online gaming environments, and they expressed the view that this was due to the socialising process of males in society:

"I think proving yourself in competitive environments is natural, even in gaming" (post number 184)

Many of the female gamers ( $n = 5$ ) felt that males were not affected by the negative criticism that they aimed towards each other in gaming because this is the way that males are often encouraged to communicate with each other offline. This again led to some of the female gamers questioning whether the issue was with them. However, others ( $n = 4$ ) felt that males treated females in a more negative fashion online than they did other males. There was some discussion of the fact that game structures are primarily designed for males, and along with the stereotype of the typical gamer means that boys will start gaming from a younger age and will play more frequently than females. Some of the female gamers argued that it sometimes takes girls longer to find the right game, to match their interests and skills. This can also be seen to be related to the common argument in discussions that the only way to get better at games is through experience and skill at gaming and is directly related to time spent playing. There was some discussion by female gamers ( $n = 9$ ) that the negative attitudes and behaviour towards female gamers is allowed to continue because female gamers hide their identity while playing, and often go along with the stereotype in order to fit in and not stand out in a *group*.

"Sometimes it's just too daunting to fight back" (post number 166)

"Ideally we shouldn't let people push us out of this space" (post number 164)

"We go to video games as an escape and fun. Not to be belittled and put down" (post number 131)

A number of females ( $n = 8$ ) talked about how they had reinforced the negative stereotype of female gamers, due to their lack of ability to play well.

"I was the worst at gaming out of all of them. I'm sorry I reinforced the stereotype" (post number 207)



## Theme 4: Strategies Used to Develop Social Support in Gaming

### *The Silent Transient Female Gamer*

The most common theme in the discussions ( $n = 29$ ) was the belief that female gamers needed to stay quiet and hide their identity from other gamers, in order to be able to play online with others, which was suggested as the only option available to them, in order to protect themselves from the negative behaviour of others.

“Silence is my favourite policy” (post number 153)

“I hid my gender from my clan for 3 years” (post number 191)

There was a common theme within the discussions of female gamers making the conscious decision to not use their own voice during gaming ( $n = 29$ ) or to change their voice ( $n = 12$ ). These gamers talked about using a voice changer or talked about during gaming to hide their identity, of using particular techniques (and recommending strategies) to allow females to lower their voice tone and to distort or even change it.

“I’m not touching a mic ever without a voice changer” (post number 73)

“Get a voice changer, pick the most manly sounding setting as possible” (post number 142)

Some female gamers ( $n = 5$ ) talked about their accents being used as a target for harassment, and ways to avoid such encounters.

“I don’t like to talk much because my voice is also deeper” (post number 75)

“Something seems to be different when you bring your own voice into the equation? I typically stay quiet and use text chat...because I rarely face any problems...but the moment I start talking that’s when the problems begin” (post number 71)

Female gamers ( $n = 18$ ) discussed the experience of being mistaken for a young teenage boy, and for some, this was a favoured identity, rather than admitting they were female.

“When someone thinks that I’m a little boy, I just go along with it” (post number 75)

There was also a common theme of female gamers frequently hiding and moving from teams and guilds due to the behaviour of others, with the majority of women ( $n = 24$ ) advocating for this when others asked for advice and reporting that they frequently moved groups and clans. There were a number of posts ( $n = 22$ ) recommending others adopt particular mannerisms and strategies to try to manage the negative behaviour of others. This included turning the comments into a joke and making fun of yourself, insulting the people back, and using sarcasm as a response. There was a common thread of discussions ( $n = 10$ ) around trying to deflect from the question and/or the shock that occurred for female gamers when other male gamers discovered they were female. Strategies used included denial, refusal to answer, and trying to make gamers focus on the game.

“I go very heavy sarcasm shock ‘GASP No, girls on the internet?!?! Everyone knows there’s no girls on the internet!’” (post number 143)

“I always just use the I’m just here to play the game like everyone else’s strategy” (post number 142)

However, there was a common thread ( $n = 12$ ) of comments where females had tried many of these strategies but eventually had felt they had no option but to leave the group. A number of posts ( $n = 13$ ) argued that females had a responsibility and a right to report any inappropriate behaviour to game administrators, although some acknowledged that there was not much point in doing this. Some of the gamers felt that the system for penalising people if they were reported was inadequate, and at times the female who was in receipt of the negative behaviour left a particular game due to this behaviour was then penalised.

There was a significant theme in some of the discussions ( $n = 11$ ) where some females felt that there was a need for women to stand up to the negative behaviour of others, rather than hide their identity or leave groups.

“Try to stand your ground, and dish it back” (post number 247)

For some ( $n = 15$ ), it was felt that as female gamers got older they became more comfortable both with their identity as a gamer, but also with standing up to others.

### *Building Networks and Social Support*

A common recommendation in the posts analysed ( $n = 14$ ) was for gamers to play with people they know and to use their social skills that they would use offline to make friends (e.g. be genuine, compliment people, etc.). Others argued that sometimes people need to accept that online gamers are not friends, and need to lower their standards regarding friendships. Female gamers argued for the need to find an ally in groups, although for some ( $n = 12$ ) they found that at times one person with negative views and making negative comments to them did not receive any negative feedback from the others. A number of female gamers ( $n = 10$ ) said that they liked to look for female gamers to play with, although sometimes other females' behaviour was also negative and there was surprise expressed by some of the female gamers when this occurred.

“We get so much shit from guys so we've been looking for other girls to play with” (post number 128)

The gamers talked about expecting this behaviour from male gamers but not from other female gamers.

“This is why I refused to play with other girls on Xbox for a long time...I always expect better from women” (post number 115)

A number of gamers ( $n = 27$ ) talked about using discussion forums for support and finding friends outside of gaming to bring into gaming. However, some gamers ( $n = 5$ ) also talked about incidences of this becoming a negative experience. A number of posts ( $n = 8$ ) again discussed the role of one person being negative and how this infiltrated the whole group. One person talked about playing with friends when a new member joined and was negative towards them, their online friends, and their team. They felt their friends behaviour allowed the negative behaviour to continue, and expressed disappointment that their friends did not stand up for them. For instance:

“Groups with good people who will defend you if someone decides to be an asshole” (post number 163)

## **Discussion**

Overall, the profile of the female gamer which emerged from the online forum discussions analysed was one who was accepting of the frequency of negative behaviour they experienced online, and expressed only mild disappointment at times when this occurred. Lack of social support was reported to frequently lead to females playing alone, playing anonymously, and moving groups and teams regularly. The experience of females in this study was therefore similar to the survey of Fox and Yeng Tang (2017) of women's experience which found the experience often led to rumination about the harassment, perceptions of organisational unresponsiveness to issues, and withdrawal from the game. The female gamers in the present study

reported experiencing anxiety and loneliness due to this lack of social support, and for some, this significantly impacted their enjoyment of gaming. Frequently ( $n = 12$ ), the negative experiences were mirrored in real-life situations for female gamers, with reported similar anxiety and social difficulties occurring offline. The women attributed these negative experiences primarily to other male gamers, but for some, they felt this was due to internal characteristics, and therefore not possible to alter.

Female strategies to build social support within online gaming communities were primarily related to hiding one's identity, although some recommended standing up to negative behaviour if an individual felt comfortable and strong enough to do this. This is similar to findings from Fox and Yeng Tang (2017) where the women reported specific coping strategies to mitigate harassment, including hiding their identity (Cote 2015), avoiding communication with other players, and seeking help or social support inside and outside the game. The issue of stress and anxiety that female gamers reported as an outcome from negative interactions experienced online (and at times linked to their lives overall) is an interesting one. Whilst previous research has suggested the role for gaming in reducing stress and its potential as a stress-relieving pastime, the present findings suggest gaming may (for some) be a space for the potential development of stress, rather than a space for the development of social support and relationship. Paradoxically, some of the female gamers talked about initially starting to play these games as a way to overcome such stress and social anxiety in their offline life.

Previous research has highlighted the role of online gaming with positive psychosocial outcomes (Kaye and Bryce 2014) and argued for gaming being associated with less loneliness and social anxiety in online game players. The lower degree of loneliness experienced was also associated with playing with friends and known people, with guild membership, as well as frequent verbal communication with teammates (Martončik and Lokša 2016). Findings of the present study appear to suggest the opposite for female gamers. It may be that the female gamers who are still playing (perhaps alone) may not be as concerned about the loneliness of the online gaming experience, although a number ( $n = 7$ ) did explicitly mention the loneliness they felt from gaming alone.

Experience of stereotype threat in gaming was reported by almost all the female gamers in the present study, in both online and offline settings, similar to previous research in the area (e.g. Kaye and Pennington 2016). While some of the females in the present study were eager to fight against this common belief, there was a general feeling of acceptance of males behaving according to this stereotype. The focus within many of the discussions was on developing strategies to allow females to "manage" this behaviour, rather than to overcome it and challenge it. There were a number of female gamers ( $n = 8$ ) who stated that they had developed similar stereotypical beliefs about female gaming in addition, and felt that they were not as skilled at gaming as males.

The present study offers an understanding of female gamers' unique social experience online, and as such offers a greater understanding of the role of social support in gaming for a particular group of gamers. Day and Livingstone (2003) suggest that an individual's perception of their social support network has an essentially greater coping effect than if they actually receive the support, suggesting the importance of understanding each individual's perception of their social networks and relationships in all aspects of life. As many of the previous studies in the area of gaming from which social support conclusions have been drawn have small numbers of female gamers in their samples, the findings and conclusions may not be as relevant to this group of gamers who are facing unique experiences online.

It has been argued that the type of interaction individuals are involved in is important for the development of deeper levels of social ties (Trepte et al. 2012). As the focus in previous research was on male gamers, the present study was particularly interested in the levels of online interactions females were involved in. The findings here suggest female gamers are playing regularly online but they are hiding their identity, as previous research has suggested (Fox and Yeng Tang (2017); McLean and Griffiths 2013). Because female gamers in the present study felt that they were not permitted (by others and at times by themselves) to become actively involved in games and to develop online interactions outside of competing, it may not be possible for them to develop these high levels of social ties and subsequent support in gaming. Domahidi et al. 2014 argued that new friendships in online gaming are created through a shared focus of activity, but females in the present study did not feel that they were facilitated or permitted to get as involved in game administration or have a role in this element of gaming.

Kowert and Oldmeadow (2013) suggested that online gaming has the potential to exist as a space for the development of critical attachment functions, where closeness, belonging, and security are developed. It may be that female gamers are unable to develop this level of security or closeness (through their own choice to hide their identity and/or through lack of social support). This perceived need to hide their identity (online and offline) is similar to previous research in the area (Fox and Yeng Tang (2017); McLean and Griffiths 2013; Vermeulen et al. 2017). Because it appears that male gamers develop significant social identities via gaming and is linked to positive outcomes for them, it is interesting to consider the motivation for female gamers to continue to play in these online environments.

Female gamers in the present study mainly attributed the sexist and negative behaviour they encountered from males in online gaming to socialising factors. However, they consistently expressed surprise when male players (online and offline) did not stand up to other people's negative behaviour. This may be explained by Dickey's (2011) research which found that players who do not act according to the conventions of behaviour in a game setting were socially excluded. There is also evidence to suggest that stereotypes and sex roles may be more prevalent in online gaming than in offline settings (Holz Ivory et al. 2014). The role of group behaviour and the changes to interactions that occurred within group settings was also highlighted in the present study. Female gamers talked about the impact of one individual who could act as an ally or could cause a break in social ties within a group when they joined. Frequently, gamers ( $n = 11$ ) talked about only playing freely within small established groups of players that they trusted.

The limitations of the present study relate primarily to the fact that those who may choose to post online in a discussion forum may be representative of a particular type of gamer and one who has experienced extreme behaviour. In this respect, the female gamers were often posting in order to seek support, and these were the main discussions that were analysed. There is also the possibility that this lack of support and negative interactions may be more prevalent in specific types of games. Previous research has acknowledged this as a limitation of the research in this area (Domahidi et al. 2014; Holz Ivory et al. 2014). While not analysed directly in the present research, female gamers in the discussions did, however, highlight a range of games and settings that they played, making reference to MMORPGs and casual games. The data comprise self-report and descriptions of some of the experience of female gamers, and this is a significant limitation of the generalisability of the findings to female gamers as a whole. The data that were analysed

were based on posts made within a one-month period and so it can be argued is limited in terms of the snapshot of time it represents for female gamers.

Future research using quantitative methods would be useful to allow consideration of the constructs (sense of belonging, perceived social support) and compare online and offline experiences for this cohort of games. Future research should also explore male attitudes towards female gamers and towards the negative attitudes displayed towards females, and build on the previous research indicating an association between sexism and game play. As with O'Connor et al. (2015), the analysis in the present study was guided by the themes identified and so some relevant themes may have been overlooked. Gamer identity was a common discussion in the discussions analysed, and future research could explore this in further detail and the association with social support. The profile of the female gamer identified could be extended and further explored in future research.

The findings from the present study offer a profile of female gamers and their social support experiences in online gaming. The findings are consistent with previous research, but new concepts emerged through an analysis of a female's experience, such as the impact of a lack of social support in both online and offline lives. The analysis allowed for a greater understanding of the type of interactions and level of social support experienced by female gamers in online gaming, not only in large group settings but also in smaller groups. It appears that the internal and external attribution of the cause of these negative interactions by female gamers offers an insight into their motivation to play these games. The present research allowed for a greater understanding of the impact of negative interactions and lack of social support in terms of feelings of anxiety and the possible experience of stress, and the impact of females hiding their identity as gamers. The research also helped further developed the profile of the online female gamer in a male-dominated environment and the possible reasons for the stereotype of female gamers continuing to develop and to impact female game play.

#### Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

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