

The Role of Gaming During Difficult Life Experiences

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ABSTRACT

HCI has become increasingly interested in the use of technology during difficult life experiences. Yet despite considerable popularity, little is known about how and why people engage with games in times of personal difficulty. Based on a qualitative analysis of an online survey (N=95), our findings indicate that games offered players much needed respite from stress, supported them in dealing with their feelings, facilitated social connections, stimulated personal change and growth, and provided a lifeline in times of existential doubt. However, despite an emphasis on gaming as being able to support coping in ways other activities did not, participants also referred to games as unproductive and as an obstacle to living well. We discuss these findings in relation to both coping process and outcome, while considering tensions around the potential benefits and perceived value of gaming.

CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in HCI**;

KEYWORDS

Games, coping, difficult life experiences, sensitive life experiences

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1 INTRODUCTION

Throughout our lives, we all experience times of personal difficulty. Serious life disruptions can destabilise routines and influence our relationships [27], making us feel vulnerable [17], distressed [34], and potentially questioning our purpose in life [20]. A growing body of research within HCI aims to understand how everyday technologies can be used to support people in coping with sensitive life experiences [17], such as relationship breakdowns [18, 31], job loss [7], moving home [38], retirement [6, 10], gender transition [15], veteran re-integration into civilian life [37], and dealing with bereavement [e.g., 1, 27]. Though not without potential issues (see for instance [16]), the findings of such work broadly highlight the positive role that technology, and Information and Communication Technologies (ICTs) in particular, can have in connecting individuals to valuable support networks.

Games are vastly popular, and there is increasing interest in examining the potential of games to positively affect players' mental health and well-being [13, 25]. Work in the area of emotionally moving game experiences has also suggested that players sometimes reflect on gameplay and how it related to personal life events involving difficult and existential concerns [20], such as coping with loss and death, family break-up, or questioning one's identity [3]. In addition, preliminary findings suggest that people may play games as a way to cope during times of emotional distress [1–3, 37]. At this stage however, it is unclear whether games play a similar role to ICTs during difficult life experience, e.g., through the social networks and connections that games can provide [8, 42], or whether they influence coping in different ways, such as providing an escape through entertainment [38].

A more comprehensive investigation that focuses on gaming would help deepen understanding of the range of technologies people utilise during times of difficulty, the purposes these technologies serve and the impacts they can have. Indeed, despite the World Health Organization (WHO) recently including gaming disorder in the International Classification of Diseases (ICD-11), it has been suggested that escapist online gaming may actually be a response to particular life problems, rather than a mental disorder related to impulse-control issues [22, 40, 41]; thus it "is vital to investigate in detail how specific media content affords coping for particular life issues" [22, p. 72]. Beyond a focus on problematic

gaming, there is scope to examine how and why games are used during difficult life experiences.

To explore these questions, we conducted an online survey with 95 participants before carrying out a thematic analysis. Our contribution is two-fold: First, the findings contribute to research on technology and difficult life experiences by providing insights into the role of gaming during times of personal crisis and upheaval [17, 27]. Namely, our analysis indicates how games are able to offer much needed respite from stress and negative thoughts, as well as affording players opportunities for social connection and for coming to terms with their feelings. We also found that gaming was able to provide a lifeline and stimulate personal growth, thereby contributing to our understanding of how people grapple with existential concerns through their interactions with technology [20]. Second, despite indicating that gaming can provide useful coping mechanisms during times of difficulty, our analysis indicates participants' tendency to view gaming as a less worthwhile or productive activity than other pastimes. While it is clear that problematic gaming behaviours can occur, the 'moral panic' [26] around games continues to influence people's perceptions of games, even when they report experiencing clear benefit.

2 RELATED WORK

HCI and Sensitive Life Experiences

Kaptelinin [20] argues that HCI should deal with the role of technology and the fundamentals of existence (i.e., mortality, identity, isolation, freedom and meaning). Many of these issues relate to *sensitive life experiences*, defined by Herron and colleagues as "life events and life transitions which see individuals in a vulnerable state" [17, p. 1]. Similarly, Massimi et al. refer to *life disruptions*, a form of adverse event that is unpredictable, uncontrollable and destabilising [27], which can also involve an identity crisis as a result of *life transition*, i.e., moving from one phase or condition in life to another [37]. From moving home to the loss of a loved one, times of personal difficulty are likely to affect us all.

According to the psychological literature [12, 34, 35], when difficult life experiences occur, people resort to different forms of coping i.e., "cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" [12, p. 141]. Folkman and Moskowitz [12], outline three different types of coping: emotion-focused (aimed at reducing negative emotions association with the problem), problem-focused (aimed at directly addressing the problem causing distress) and meaning-focused (where cognitive strategies are used to engage in meaning-making [34, 35]), whilst highlighting the increasing attention being paid to social factors (e.g., where other people can provide instrumental or emotional support). While these distinctions can be useful, the

authors note that are quite broad, where specific strategies may be adaptive or maladaptive, i.e., more or less useful, depending on the circumstances.

Research in HCI and sensitive life experiences has focused on coping within a range of contexts. Massimi et al. [27], for instance, examined the role of technology across three different instances: leaving an abusive partner, homelessness, and the death of a family member. They note how social and technological relationships are reconfigured in each of these cases in order to mitigate some of the consequences of these extreme disruptions as the individuals involved move towards 'a new normal'. As technologies are an integral part of our lives, they can influence and potentially change the ways in which we cope. For example, Baglione et al. [1] note how people experiencing bereavement are increasingly supported through digital memorializations and through expressing their grief online. In another instance, Haimson et al. [16] focus on the experience of transgender people, noting that while they can find support from others online, they also have to deal with social networking technologies that do not always support them in negotiating the challenging interplay between their past and current identities.

Games and Coping

Despite calls for more research into the role that games play in players' lives [41], in the context of sensitive life experiences, this has rarely been an explicit focus. For instance, Semaan et al. explored veterans' use of ICTs during civilian re-integration [37] mainly in relation to Facebook and Reddit, and also to veteran-specific spaces. However, some participants referred to engaging with massive multi-player online games (MMOGs) as a form of escape from the difficulty of transition, to connect with former soldiers, and as a way to draw on the old structures of their military identity. In another example, Baglione et al. [1] conceptualised playing video games as a means of distraction and self-care when dealing with complicated forms of grief. Shklovski et al. [38] also refer to games as part of using the Internet for entertainment, as a possible escapist coping strategy when dealing with moving home. However, they include browsing behaviours as part of the same strategy, so the extent to which their findings relate specifically to games is unclear. Despite referring to MMOGs, the authors appear to view using the Internet for communication as a separate strategy and do not note the potential overlap with regard to games.

Within game studies, Banks and Cole [2] investigated the use of games in the context of military personnel and veterans. While they do not explicitly focus on sensitive life experiences, part of the research involved asking participants about whether they ever used games to work through the 'challenges' they had experienced as a result of their military service (presumably, many of which are likely to relate to

times of personal difficulty). The findings suggested that games were able to provide an escape from stress, a way to manage physical or psychological challenges, an opportunity to experience camaraderie and support from other military personnel and a way to enjoy connections with civilians. While some of these themes are specific to a military context, social support is clearly important for coping with challenges and there is scope to explore how their findings apply in different contexts.

A related body of research has also emerged around the potential emotional benefits of games [13] where studies have looked more broadly at gaming as a way to deal with general stress. Reinecke et al., for instance, indicate that games were more likely to provide relief from frustration than non-interactive media due to their being more cognitively demanding. Building on Reinecke's findings [36], Collins and Cox [9] find further evidence that gameplay can aid post-work recovery. They found that a variety of genres could promote recovery experiences, but that this was most pronounced for action and first-person shooters. These effects were further mediated by online social support suggesting that, at least in part, games are effective at promoting recovery because of the opportunities they provide for socialising. In work focused on male gamers, Vella and colleagues [42] also indicate that online gaming can lead to positive emotions such as competence and camaraderie, and suggest that the activity provides players with a way to access social support. In particular they note how voice chat can help develop trust between players, creating opportunities to bond over gaming experiences and to discuss emotional issues.

It has also been suggested that interacting with others online may be a form of coping with personal difficulties, where "negative life situations can give rise to a motivation to go online to alleviate negative feelings" [21, p. 352]. The effects are not always clear however, where different research has indicated that online gaming can both positively or negatively influence wellbeing [39]. On the basis of their studies, Snodgrass and colleagues suggest that the outcomes depend on the way in which an individual engages online – where intensive online play can improve wellbeing in lonely players by creating opportunities to bond with others. In contrast, more casual forms of play will not allow for a 'signaling' of mastery and commitment that intensive involvement enables, making players less likely to connect with others and exacerbating their feelings of loneliness.

These studies highlight how games may be able to influence general wellbeing through providing an escape, influencing mood and supporting social interaction. However, even though there has also been increasing interest in using games for promoting mental health or treatment of clinical symptoms [e.g., 25], there are few studies on players' existing use of games as part of coping with life transitions and

disruptions. Games have generally received limited attention in previous research on HCI and sensitive life experiences. To our knowledge, and outside of a specific focus on military personnel, no study has specifically examined how people engage with games to navigate times of personal difficulty.

3 METHOD

Overview of study

The goal of this study was to consider the role of gaming during difficult life experiences, that is, how players engage with games and gaming-related activities when navigating difficult events and disruptions in their lives. Given the potentially sensitive nature of the subject matter, we wanted to ensure that participants did not experience any major discomfort or relive any trauma due to participating in the study. Hence, we chose to solicit participants' experiences via open-ended questions in an online survey rather than interviews. Surveys are arguably limited due to it not being possible to ask follow-up or clarifying questions. However, they are less intrusive and afford anonymity, which allows people time and space to reflect on sensitive topics and consider what information they feel comfortable disclosing [16, 23]. Moreover, whereas interviews might have blurred the boundaries between our participants and our role as researchers [43], an online survey was thought to be less likely to cause distress for the authors of the present work [30].

Procedure

Upon clicking the survey link, participants were introduced to the survey and asked for consent. Participants were required to be over the age of 18 years. While surveys can be less intrusive than interviews on distressing topics [16, 23], they may still increase respondents' levels of stress and negative mood [23]. To minimise potential risk and discomfort [33], the survey instructions emphasised the voluntary nature of the survey [43], that participants were free to drop out at any time and that they were free to share as much or as little of their personal experiences as they wanted. Due to the sensitive nature of the topic, it was recommended that people currently suffering from high stress or emotional distress did not take part. Participants were then instructed:

All of us have times of – perhaps ongoing – personal difficulty. Please think of a stressful, confusing, troubled, or discouraging time in your life, during which you play(ed) video games. Please describe this difficult time in your life. What did you experience as stressful, confusing, troubling, or discouraging?

The above description of a 'difficult time in your life' corresponds to the wording employed in Pals' study on difficult life experiences [34]. To minimise discomfort this first question

was left optional, where 11 participants chose *not* to respond. Next, participants were asked what game(s) they played during this difficult time and why they had chosen them. They were then asked to describe whether they thought playing was helpful, whether they thought gaming had affected them negatively in any way and whether they had engaged in any other gaming-related activities (e.g., posting on forums, creating mods, fanfiction, etc.) during this time. To further contextualise participants' coping practices, we also asked them about activities or resources outside of gaming they had found helpful. Finally, participants provided demographic information and indicated their gaming preferences. At the end of the survey, participants could enter their e-mail address, if they wished to enter a prize raffle for one of 10 \$20 (USD) Amazon gift cards. Before submitting their responses, participants were once again asked whether they consented to disclosing their experiences, in case any changed their minds after partaking in the survey. However, no participants chose to withdraw from the study at this stage. Participants were then referred to the final screen of the survey, which thanked them for their time and contained links to different international and national support organisations (e.g., Befrienders Worldwide) – if participants chose to quit before completion, the same links were presented in a pop-up window to ensure participants were provided with contacts that could offer support. On average, the survey took 15 minutes to complete.

During recruitment, several participants left comments on our subreddit posts, where we had advertised the survey, all of which were positive. Participants provided encouragement for our study and research on the role of gaming during difficult life events, or asked us how we got into this field of study. While somewhat blurring the research boundaries [43], the second author responded to all comments to ensure that respondents felt heard and comfortable with their participation in the study; for instance, by disclosing that the research team also shares a personal interest in gaming.

Due to the sensitive and sometimes in-depth accounts of participants' difficult life experiences, the authors also held regular debriefing sessions during data collection and analysis to discuss our own feelings of distress brought about by engaging with the data [30].

Participants

Participants were recruited from the SampleSize survey subreddit, as well as various gaming subreddits (i.e., r/GFD, r/gamedev, r/IndieGaming, r/itchio). A total of 230 participants clicked the survey link, of which 95 participants completed the survey: 58 male, 28 female, 7 non-binary, 2 preferred not to disclose their gender, ranging from 18 to 58 years of age ($M=25.50$, $SD=6.90$). On average, participants had been playing digital games for 17.81 years (ranging from

7 to 37 years). Participants' game preferences were quite varied, with the most popular genres being role-playing games ($n=76$), adventure ($n=67$), as well as first-person shooters ($n=56$), and strategy games ($n=55$). Sixteen participants' profession or area of study related to games in some way.

Our participants dealt with a range of difficult and highly stressful experiences. These included struggling with mental health issues, familial and relationship problems, bereavement, as well as other episodes of considerable emotional turmoil (e.g., dysphoria, losing their job). Participants often played several games during these times. While the reported games covered a broad range of genres (e.g., RPGs, MOBAs, action-adventures, casual games, first-person shooters, etc.), several participants referred to playing *Skyrim*, *World of Warcraft*, *Stardew Valley*, *Overwatch* and the *Pokémon* games. Participants also engaged in a variety of game-related activities, such as visiting and commenting on specific game subreddits and forums, watching game-related videos and livestreams on YouTube and Twitch, as well as engaging in creative fandom activities (e.g., cosplay, modding, reading and writing fanfiction). A few participants also actively contributed to forums aimed at gamers dealing with mental health issues. For many participants, gaming was one of many activities that helped them cope. Talking with friends and family, taking walks and other forms of physical exercise, playing music, as well as attending counseling and therapy sessions were deemed particularly helpful.

Thematic Analysis

To analyse the responses, we conducted an inductive thematic analysis as outlined by Braun and Clarke [4, 5]. Our aim was to gain a rich understanding of the role of gaming during difficult life experiences rather than focus on participants' responses to the individual survey questions. The first and second author were both involved in reviewing the data, the code generation process, and the data coding through reading and discussion throughout. Accordingly, each researcher first examined the data set before manually developing a set of initial research codes. Some examples include "Distraction from emotional pain", "Feeling like part of a community", "Games as non-productive" and "Resonance". Codes pertained to both the semantic content (i.e., what participants wrote) and latent levels (i.e., participants' assumptions underlying the semantic content). With regards to the initial coding of the entire data set, sentences formed the smallest unit of text and could be assigned several codes. Working together, we manually collated and amended these initial codes by grouping and re-grouping them to develop a set of provisional themes (see supplementary materials for some examples). The final stage involved further refinement of these provisional themes, through using Nvivo 12 to apply

them to entire data set to determine their fit. Overall, the inductive thematic analysis resulted in 65 codes, used to create 8 provisional themes, and then 6 final themes.

4 RESULTS

In examining the role of gaming during difficult life experiences, the following six themes are presented: (1) much needed respite; (2) connection - no one should be an island; (3) dealing with feelings; (4) prompting personal change and growth; (5) gaming as a lifeline; and (6) gaming as an obstacle to living well. Note that the themes were not mutually exclusive (e.g., a quote about playing with others being a good distraction would be coded as both "Connection" and "Respite"). Each theme is discussed below with illustrative quotes, labeled by participant number and age, e.g., (N135; m, 31) refers to participant 135, male, aged 31. Please note that the original participant numbering is retained (i.e., of the initial 230 respondents who accessed the survey, though the responses analysed only came from the 95 who completed it). Quotes are also kept in original spelling and punctuation.

Much Needed Respite

The focus of the first theme is on how games were able to offer necessary respite from the stress and trauma that participants were experiencing in their daily lives. As explained below, difficult life experiences (such as dealing with the terminal illness of a loved one) are exhausting, and certain forms of gameplay can provide a valuable break:

"Your emotions and strategic planning/thinking abilities are exhausted as your mind searches for alternative plans, options, and considers how to try to save your loved one, care for the survivors, cope with or process the loss yourself, and go through all the aspects of grief ... you need distraction or retreat to rest. A somewhat mindless game that you can sink into with repetition and sort of get into a 'zone' where you play with complete focus and without thinking about much was a sort of meditation." (N37; m, 31)

Both playing games and engaging in related activities were frequently referred to as providing 'distraction' or 'escape', e.g., "Discussing games on Reddit was another source of distraction that helped keep my mind off of negative thoughts" (N101; m, 21); "Playing videogames took my mind off not having a job. I guess they helped me escape reality when I played." (N114; m, 23). Essentially, gaming provided an activity for participants to focus on that wasn't related to the difficulties they were going through. For some who were dealing with mental health issues, this focus helped them to disrupt negative thought processes:

"...although I believe it needs to be applied with moderation, distraction in short periods was helpful for me. Because I struggle with anxiety as well as depression, I can often get trapped into unproductive thought loops, and being able to immerse myself and focus on something else like a game or movie sometimes gives me an easy way to interrupt that." (N86; f, 27)

Additionally, through providing an engaging experience, gameplay was described as distracting from physical, as well as emotional pain: "I was able to focus on something else and something interesting. To this day, I still have good memories of Morrowind's ability to help me cope with my physical pain during that time period." (N48; f, 36)

Games were also described as being more effective than other pastimes: "The escapism of video games let me relax and clear my head in ways that I can't do just with other activities (ie reading, watching tv, etc)." (N155; f, 26). To successfully achieve respite, the right balance of challenge was key "so that I'm focused enough to momentarily distract myself from my situation, but not stressed out additionally by a high difficulty." (N19; m, 33). Thus, players often sought out experiences where they could minimise the risk of creating further stress e.g., through choosing familiar games that had repetitive tasks like Battlefield, which "was something that I [have] known and I found comfort in repetition and playing the same game all the time." (N34; f, 22). Similarly, N121 (m, 19) explains how they prefer to play Stardew Valley alone, as opposed to engaging in multiplayer games because it "is the most relaxing. The other games are a bit more stressful and it helps me get distracted".

In addition, participants highlighted how in gameplay they were "achieving something, reaching goals" which "helped me escape my life, stopped the pain for a little while." (N185; f, 28). Games allowed for "small accomplishments ... while real life didn't have many rewards" (N142; f, 37) where "it made me feel like I wasn't a failure and had some control on what I was doing with myself." (N70; m, 20). Due to dealing with negative issues beyond their control, games were able to offer further respite through providing players with opportunities to experience competence and agency, which may have been lacking in other areas of their lives.

Dealing with Feelings

The second theme relates to players describing gaming as a helpful way for them to work through their feelings about their current situation. In contrast to playing for respite, a few participants purposefully selected games where the narrative resonated with aspects of their current situation, e.g., when explaining what they played during a difficult time: "Celeste, LiS [Life is Strange] - relatable characters,

themes of anxiety." (N141; not stated, 21). Similarly, some chose to play games that:

"dealt with heavy issues like suicide and depression, which confronted me with my own feelings ... When I played games with heavy themes like *The Cat Lady*, I could understand the characters better, and that made me realize that even though depression sucks, it gives you a ton of empathy." (N111; f, 26).

Thus, some participants appeared to deliberately engage in uncomfortable experiences in an effort to come to terms with their emotions and deal with how they felt about the situation they were in.

In another example, players connected with a game despite not playing it themselves: "Technically I watched a playthrough of P3FES [*Persona 3*], not played it" where the game "has ended up as one of my favorite narratives ever because it hit so close to home with its depictions of depression" (N204; nb, 23). However, the participant also raises a note of caution when playing games with serious themes when describing "graphic depictions of death¹, which did give me more vivid suicidal ideations." Despite the negative imagery, the participant generally found their experience related to P3FES to be beneficial:

"Fanfiction and waiting for the updates of said fanfiction gave me something to wait for and look forward to when I was suicidal. One *Persona 3* fanfiction even made me realize how bad my depression was" (N204; nb, 23)

For other participants, processing emotions was more about catharsis, where they played to vent frustration and stress, e.g., in relation to *GTA5* "The open world and lack of permanent in-game consequences, even when committing serious violence, made for a very easy way to channel stress." (N221; nb, 24). Players occasionally appeared to experience gaming both as respite and a way to process their emotions, where, one participant explains how they found *Kingdom Hearts Birth by Sleep* helpful "because I was able to escape the pain and have a break. The story also has heart felt moments that made me cry or more helped me cry and it was very therapeutic." (N87; f, 28). Note that this process could be accidental, e.g., "Dark Souls kinda helped me process some of the stuff going on in my life for some reason" (N131; f, 21), where games helped players deal with their feelings, even if that was not the original aim.

Connection – No One Should Be an Island

The third theme relates to how games can provide valuable opportunities to connect with others in different ways. We

¹E.g., player characters in *Persona 3* summon their Personas by holding and triggering a gun-like object against their head.

labeled the theme 'Connection - No one should be an island' to highlight the fact that isolation can be a significant factor within difficult life experiences and to reflect the implicit assumption that it is beneficial to feel connected to something other than ourselves. Connections could occur through social forms of play, e.g., "I would stream (live stream) *Resident Evil 7* as it made me feel less alone and more supported, *Diablo 3* I would play with family for the same reason" (N147; m, 29) or engaging in related activities, e.g., "I often browse the subreddits for games I play. Reading stories and feedback other fellow players have make me feel a part of a community" (N32; m, 22). Through engaging with people who shared a similar interest, gaming was able to provide "a sense of satisfaction and belonging" (N11; m, 24).

There was sometimes an overlap between this theme and 'Much needed respite', where participants indicated it was helpful to engage with others without having to discuss their difficulties, e.g., multiplayer games "allowed me to chat to friends and keep my head out of my issues" (N128; f, 24). In other cases, the interaction was closer to 'Dealing with feelings' as gaming provided an additional form of support, e.g., with *Star Wars: The Old Republic* "I was able to talk to my friend if I needed someone to talk to" (N13; m, 22). However, while generally positive, there was the occasional reference to negative online interactions, such as:

"I remember playing *San Andreas* multiplayer. The server had its own forum, admins and social life in the game and I spent a lot of time just chatting with people. That was the first time I overcame my social anxiety and made some of my first internet friends. The only negative experience were other girls, who saw me as a threat to their popularity I guess. But I mostly ignored them." (N123; f, 21)

Beyond providing opportunities to engage with other people, gaming also appeared to support different forms of connection. For instance, where gameplay allowed people to feel connected to someone who had passed away: "Also, which I think is important to say, is that I played the games, because we played them with my younger brother, or he was watching me play them before he died. So it maybe helped me a little bit to fill the void his death left inside of me" (N127; m, 28). Additionally, a form of connection was also experienced through engaging with characters within the game:

"It helped me not feel so alone. Sometimes during the middle of the story when i was really drawn in i almost forgot what i was dealing with and i felt normal for a little bit ... People make me feel so alienated most of the time. It helps knowing that even though ill never probably have a lot of

real friends, these characters were created by a real person and so that helps" (N167; m, 43)

Here, through playing RPG and adventure games with a "good story and relatable characters", the participant explains how games were able to offer a form of respite from the loneliness they experience as a result of their anxiety. While the game itself offered opportunities to create an attachment with in-game characters, the quote also suggests feeling a sense of connection to those who created the games.

Personal Change and Growth

The fourth theme relates to the ways in which games acted as a catalyst for personal change and growth. For instance, one participant explains how "Gaming motivation slowly got me back into exercising and carefully editing my dietary habits, which was launched through gaming and character development" where:

"Being able to feel involved in something, enjoy it, explore, and focus on improving something (even if virtually only) was something I needed in order to get out of my head and start getting motivated a little bit at a time" (N99; f, 28).

Similarly, "Playing games like Skyrim, where I could explore for days and be the most powerful person alive, sorta gave me confidence in the real world as well" (N11; m, 24). These experiences suggest that, through providing opportunities to develop competence, the confidence and motivation developed in game can transfer to other areas of a person's life.

Participants shared further experiences of personal growth, e.g., "Learning that actions had consequences was an important lesson that dark souls taught me" (N175; gender and age not stated). There was sometimes a social component to learning, where the process resulted from interacting with other players:

"surprisingly, Gaia Online also increased my social knowledge too - I interacted with and learned a lot about groups of people I would have never interacted with otherwise - arguably more, as listening to them express struggles and hardships that they wouldn't have expressed outside of the online social environment really increased my understanding and empathy towards those groups, and towards humanity as a whole." (N227; m, 33)

Additionally, other community members could also influence personal changes. For instance, in relation to a psychologically abusive ex-partner, N5 (f, 36) explains how the support from other World of Warcraft players "helped break me free of that relationship. People from the game encouraged me to go to college and I did".

Gaming as a Lifeline

The fifth theme focuses on how gaming provided a lifeline during periods of existential doubt. There was an indication from several participants that they would have "been worse without video games" (N21; m, 21), where gaming was described as preventing them from more destructive behaviours. In some cases the possibility of self-harm was implied, e.g., "They helped distract me from extremely negative thoughts that may have led me to do something reckless" (N101; m, 21), whereas in others it was made more explicit, e.g., "They were also helpful because they kept my mind and body busy, they suppressed the thoughts of suicide" (N168; m, 18). For some participants, the lifeline was found in the "Connection" games provided with others:

"Video games helped [me] to stay connected with outside world and kept from depression and loneliness completely consuming me to the point of committing suicide. After my only family member's death playing video games was [the] only reason to get outta bed" (N215; m, 24).

Games appeared to provide players with a sense of purpose at a time in their lives when they were struggling: "I played Overwatch because it gave me meaning. My intense dysphoria made me depressed and isolated. I didn't care about anything. I hardly cared about myself. Overwatch, and trying to be the best I could be at it, gave me something to focus on, something to aim for." (N38; f, 19). Similarly, in the following example, the participant notes the challenges they were experiencing in their daily life and how a specific game was able to provide them with more achievable goals both within and outside of the game:

"I wasn't doing a good job of looking after myself; my appetite was non-existent and I barely ate anything. Looking after my puppies in Nintendo: washing them, feeding them, walking them, playing with them gave me a sense of accomplishment. There's a feature in the game where you can actually "take" the dogs on a walk by bringing your 3ds out with you. I didn't want to leave the house but I did sometimes to "walk" the dogs, so I did get outside and got some fresh air. This is probably more than I would have done without the game." (N177; f, 27).

While there is overlap with "Personal change and growth", the quote also illustrates the contrast between the nature of the participant's situation (where they were not looking after themselves) with the unique way the game was able to provide them with more manageable challenges related to looking after their Nintendog puppies.

Gaming as an Obstacle to Living Well

The final theme relates to a view of gaming as being detrimental to wellbeing. Despite the vast majority of participants suggesting they got something positive out of gaming, many also referred to negative effects of playing games e.g., in terms of how excessive play affected "school work" (N78; m, 18), or when it led to decreased physical activity and fewer opportunities for socialising in other contexts:

"The only negative side of it is that I'm spending most of my time in my room, alone and sitting at my desk. I don't get outside much, and don't get much of a chance to socialise with other people. It's a very sedentary and asocial life, and I know that it's negatively affecting my health" (N97; m, 25).

Some participants suggested that their involvement in gaming prevented them from dealing with problems head on, where it "Pulled me away from social interaction and seeking support" (N45; m, 28). There was a risk of gaming being "abused" as a way "to run away from the feelings and thoughts I didn't want to deal with" (N146; m, 24). Similarly, there were occasional references to addiction, but only one example that referenced a potential diagnosis: "Before the WHO said there was a such thing as gaming disorder my psychologist said I had a severe addiction to video games. I couldn't go more than a few hours without, I would be irritable and would think of nothing else" (N185; f, 28). However, a few participants also recognised that they may have been using games as a scapegoat for other issues:

"It did hurt my relationship with my sister. She was young at the time and wanted me to play with her and I had no interest in that. This went on for a few months before she gave up. This wouldn't have been different no matter what I did, but it was easier to blame the games for it than to say there was an issue beneath it all." (N52; m, 22)

It was suggested that the low barriers of access to games made players less likely to engage in other sorts of activities, e.g., "it's very easy to just say fuck it, and stay in bed playing games" (N211; m, 28). While previous themes indicate that games being less effortful as a positive (since other pastimes required more energy than individuals may have been able to give), here, the concern was that gaming would displace other, presumably more worthwhile, activities, e.g., "I was always playing games which meant I didn't have time for other things which can be bad" (N187; m, 19). Similarly, gaming experiences were not always viewed as being valuable, e.g., "I like the illusory sense of achieving something even though it's ultimately worthless/pointless" (N179; f, 25). As

one participant succinctly stated "after all it's still not as productive as doing things in the real world" (N9; m, 25).

While excessive gaming can have detrimental effects, many of the negative viewpoints expressed also seem to reflect societal discourses around the perceived value of the activity. In particular, there were examples of participants struggling to reconcile their positive experiences with the concept of 'productivity'. For instance, as noted earlier, N101 (m, 21) stated that games "helped distract me from extremely negative thoughts that may have led me to do something reckless" but later describes gaming activities as "very unproductive". Similarly, N123 (f, 21) first explains how gaming:

"gave me space where I belonged I guess. ... I started playing League of Legends and met friends I'm still in touch with, almost 7 years later. Games gave me something I could be passionate about, when everything else just seemed dull. And when I was searching for a career path, there was nothing I was even remotely interested in, so I chose to study IT and it's been the best decision of my life. Games gave me escape from harsh reality, my own thoughts and something I could pursue."

However, despite referring to games providing an 'escape from harsh reality' (Respite), creating and supporting relationships with others (Connection), providing purpose through inspiring passion (Lifeline) and influencing their career path (Personal growth), N123 later admits to still occasionally wondering "What if I spent my time doing something more productive?".

5 DISCUSSION

Research within the domain of sensitive life experiences has indicated that technology can provide people with an additional way to cope during times of disruption and transition [17, 27], where there is a need to understand how people use technology to grapple with existential concerns [20]. However, despite suggestions that games may afford support through providing an escape, opportunities for socialising or changing mood [e.g., 36–38], there has been little explicit focus on the role of gaming within difficult life periods. Our study addresses this gap, where we present six themes that provide further insight into games as a specific technology people turn to in times of difficulty and the impacts it can have. Below we discuss these themes in relation to (1) how gaming is used as a coping strategy, and (2) the potential outcomes of gaming as a coping mechanism, before considering (3) limitations and future work. Where relevant, we also highlight potential considerations for designing games that explicitly aim to support people during times of difficulty.

Gaming as a coping strategy

Our findings lend support to the idea that gaming can be used as a form of coping [2, 22] across a range of sensitive life experiences. Through providing an interactive yet low effort activity with manageable challenges, games appear to offer a level of distraction that other media may not [36], in a way that is also not too overwhelming. Yet our analysis indicates that gaming isn't solely about escaping to another reality [38] or attempting to experience a more positive mood [36]. Perhaps somewhat similar to the concept of 'recovery' [9], games seem to be able to provide a *necessary* respite from emotional distress and negative thought processes. Periods of personal difficulty are exhausting, where the ability to take a break through mentally distancing oneself for a period of time [24], could serve as a vital self-preservation strategy.

As with research into sensitive life experiences that focuses on ICTs [e.g., 1, 27, 37], gaming seems to primarily be a form of emotion-based coping [12] due to the social connections it can provide. While there were some examples of players engaging in specific support groups (e.g., focused on gamers and mental health), the 'Connection' that players experienced was also seen to manifest in a range of different ways. For some, socialising was a form of respite, whereas for others, gaming facilitated relationships in a way that helped them deal with their feelings. There was also evidence of additional forms of connection, whether to game characters or to people that had passed away, echoing findings on emotionally moving game experiences [3]. In general, playing games and engaging in gaming related activities helped people feel less alone and provided them with a sense of belonging at a time when they may have felt quite isolated.

While previous literature has considered concepts related to respite and connection, our findings also suggest that games could be used in a more instrumental way. On occasion, this related to social support (e.g., when N5 was encouraged to leave an abusive relationship), but we also saw players who were willing to face their emotions head on by choosing games that resonated with them. Though relating to emotions, these examples were closer to meaning-focused coping strategies [12, 35] as they involved interpretation of personal experience. 'Dealing with feelings' was not as prominent as 'Respite' or 'Connection', but the fact it occurs at all suggests that there is scope to create games that are designed with the aim of supporting people going through particular types of difficulty, perhaps through encouraging meaning-making. That said, designers would need to be careful about presenting particular issues in a conscientious and sensitive way. Additionally, work examining extreme role-playing games highlights the significance of aftercare when dealing with intense and difficult topics [32] – it may be that further social support could be built into such games

to ensure that players can discuss their experiences and any issues that occur as a result.

Potential outcomes of gaming as a coping strategy

Gaming appears to be one of several strategies people engage in as part of coping with life difficulties. While the activity is unlikely to 'solve' a particular problem being faced, our themes suggest that gaming can result in both positive and negative outcomes. With respect to "Gaming as a lifeline", the perceived outcomes were positive, where games were able to provide players with a sense of purpose and in a way that other pastimes were not. As with Snodgrass et al. [39], we saw explicit references to how gaming helped people through a range of difficult life experiences, including thoughts of suicide. For many of our participants, there was a sense they would have been worse off without gaming, whether through games offering achievable goals and respite, or a form of connection. These findings link to Kaptelinin's [20] work on existential concerns in HCI, suggesting that games not only offer people a way to overcome isolation but also the sense of meaninglessness that results from difficult life experiences that are beyond our control [35]. However, the level of purpose provided may be somewhat different to what Kaptelinin had in mind. Nevertheless, we observed a few instances where participants engaged in meaning-making [34, 35] through gaming. For example, playing *The Cat Lady* made N111 realise that their struggle with depression gave them 'a ton of empathy', lending further credence to games' potential to stimulate self-reflection [3, 29].

Similarly, our findings indicate that gaming could lead to 'Personal change and growth', where there was potential for the activity to increase confidence in other contexts, and to encourage people to engage in wider activities. In addition, the social connections established through play could sometimes provide support for making changes in other areas, potentially as a more problem-based form of coping [12]. The examples of personal growth relate to previous work, where gaming is seen to contribute to learning on a personal level such as influencing emotional development and career choices [19]. There is also some overlap here with the concept of 'transformational reflection' (i.e., conceptual or behavioural change) [11]. While transformational reflection is rare, both in general [11] and in the context of games [29], our findings provide further evidence that gaming can lead to positive changes. Though not the focus of this study, reflection is likely to be a key aspect of supporting transformation, where there is scope for further work to examine this relationship within the context of designing games that support personal growth and change.

Finally, within the theme of "Games as an obstacle to living well", the outcomes were primarily negative, with concerns being expressed about how gaming was displacing other

forms of activity that were considered more beneficial (e.g., socialising with others outside of play, engaging in physical activity etc.). Players did report using additional strategies for coping but rarely expressed concern about these. While not the focus of our work, we did see evidence that gaming could become a maladaptive coping strategy (e.g., negatively effecting relationships and school/work activities) when the activity was less about offering a short-term respite, and more about longer-term avoidance. This is potentially similar to the distinction Folkman and Moskowitz [12] make in relation to ‘distancing’ and ‘escape-avoidance’ strategies.

While we do not doubt that gaming behaviours can become problematic, and would encourage further research into gaming being used as avoidance, we also noted a tension between reconciling the benefits reported by participants and their questioning of whether gaming was less ‘productive’ than other activities. As suggested by work on parents’ perception of children’s game play [28], it appears that discourses around ‘moral panics’ concerning gaming addiction [26] and the value of play [28] likely shape how players perceive and report on the influence of games. These issues potentially make it harder to discuss the utility of games within the context of sensitive life experiences and to unpack the impact of gaming activities more generally. In addition, they could be a concern for those seeking to design games for supporting mental health and wellbeing since they may influence how open players are to such approaches.

Limitations and Future Work

In the present study we solicited players’ accounts of dealing with difficult life experiences. However, while there are commonalities with respect to how people use technology to cope [17], the study did not focus on specific aspects of games and how these relate to different types of difficult life experiences. For instance, as several participants referred to *Skyrim* and *Stardew Valley*, further research could perform more in-depth analysis (e.g., through targeted interviews) of the potential links between different genres, particular game elements, and the ways in which these support coping during a particular life disruption.

In addition, while we tried to solicit more diverse accounts by disseminating the survey on platforms that support independent games (such as *itch.io*), most of our participants referred to mainstream titles. It may be that non-typical gameplay experiences influence coping in different ways, e.g., by encouraging meaning-making, but future work will need to explore this further. Autobiographical games, such as *That Dragon Cancer* [14], could be another avenue to explore, in terms of how playing or even making personal games affect coping with difficult life experiences.

Furthermore, due to the voluntary nature of our recruitment strategy, our sample is likely to have included people

who have a vested interest in the area of games and coping. That said, we did attempt to reduce bias by including questions about games both helping and hindering, and the responses do not focus purely on the benefits of playing games. However, targeting gaming related subreddits means that we are likely to have recruited participants who identify as gamers, where it may be that casual players engage differently with games during difficult life experiences.

In any future work, we would strongly encourage researchers to consider ethical issues relating to eliciting accounts of difficult life experiences and the researcher’s role in this [30, 33, 43]. Careful thought needs to go into how the data will be collected, the phrasing of questions and whether additional forms of support will be provided to participants. We also recommend considering the researcher wellbeing by putting in mechanisms to discuss potential issues and provide further support if needed.

6 CONCLUSION

Despite the attention within HCI to the use of technology and sensitive life experiences, very little work has focused explicitly on games. Our analysis suggests that gameplay offers a manageable activity that can offer players ‘much needed respite’ from the difficulties they are experiencing. The social aspect of games, whether through playing with others, engaging in game-related activities or interacting with in-game characters, provides opportunities for players to feel more ‘connected’ during potentially isolating periods. In some cases, games can also help players ‘deal with their feelings’ through allowing them to work through their emotions and engage in relatable experiences. As a result of gaming, players may experience ‘personal change and growth’, indicating the transformative nature of play and the potential for gaming to influence other areas of life. During times of distress, games can be a ‘lifeline’ for players, providing them with a purpose at a time when their lives lack meaning, and helping them to avoid more self-destructive behaviours. While gameplay could become problematic when used purely as an avoidance tactic, we noted a tension between the potential benefits gaming can provide and the perceived value of the activity, which was reflected in accounts of how games could be ‘an obstacle to living well’. Through presenting our themes and providing an opportunity for our participants to share their experiences, this work contributes a more nuanced understanding of gaming and its role in helping us cope during difficult times.

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