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# Choice-based games and resilience building of gender nonconforming individuals: a phenomenological study

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#### Abstract

Purpose – Narrative-driven, choice-based games, games that allow gamers to make decisions regarding the game characters and storylines, can bring forth emotional changes in their players and offer empathy during scenarios that a player may not experience in real-world situations. Therefore, they can be used as tools to help with gender nonconforming (GNC) individuals' resilience regarding their gender identities. This study explores GNC peoples' game-playing experiences with choice-based games, especially how such experiences help them gain resilience and shape their gender identities.

Design/methodology/approach – This study follows the classic phenomenological approach to understanding the experience of GNC gamers' resilience experience from their own perspectives. In-depth interviews were conducted with 12 GNC participants, aged between 18 and 34. Each interview lasted 45–90 minutes. Interviews were transcribed and coded using NVivo R1. The essence of meanings was identified using themes and interpreted through qualitative analysis

**Findings** – This paper identified six gender- and resilience-related common themes within GNC people's gaming experiences, including 1) character creation: exploring gender identity through an avatar; 2) self-exploration and experimentation in games; 3) resonating experiences; 4) positive inclusive features in games; 5) storytelling and involving the player and 6) your actions have meaning.

**Practical implications** – The themes, patterns and game features identified in this study may provide insight into potential resilience-building activities for GNC people. They may inform digital mental health interventions, information services and game design practices.

**Social implications** – Equity, inclusion and social justice have become a significant theme in today's society. This study focuses on a marginalized community, GNC people and their mental health and resilience building. Results of the study will contribute to the understanding of this community and may inspire more intervention methods to help them cope with stress and difficult situations.

Originality/value — Research on gaming's health benefits for the general population has been abundant, but studies about using games to help the LGBTQ+ community have been largely overlooked until recent years. Research on casual games' mental benefits for LGBTQ+ people is particularly lacking. This research is one of the first in-depth, comprehensive investigations of GNC individuals' resilience experiences with a particular type of casual video games, choice-based games. The phenomenological study offers rich description of gaming and gender identity exploration from gamers' viewpoints.

**Keywords** Gaming, Resilience, Gender identity, LGBTQ+, Digital behavior, Digital culture **Paper type** Research paper

#### Introduction

It was reported that over 2.69 billion people worldwide played video games in 2020 with an expected increase to 3.07 billion by 2023 (Gilbert, n.d.). The gender divide between male and



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female gamers has been getting closer in many parts of the world, such as Asia (Partners, 2020) and the USA (Clement, 2021). Meanwhile, the nature of video games has changed significantly in the past decade, offering complexity, diversity, realism and shedding light on social issues. In most games, heteronormative content is the standard (Ruberg, 2019), but the stereotype of a typical gamer no longer applies with such a broad reach of the types of players. The increase of diversification of gaming culture and movements, such as Gamergate in 2014, accented how racist, sexist and discriminatory gaming culture could be and pushed the expansion of games into queer expression and self-discovery that offers chances to explore gender, sexuality and identity within a controlled space. Queer content is being developed by indie game developers, such as Dys4ia, and promoted by organizations like GaymerX (GaymerX, n.d.). In massively multiplayer online role-playing Games (MMORPGs), players can experience a unique narrative structure of gaming that makes it possible for each person to create their own goals within a virtual world (Eladhari & Lindley, 2005). Gamers also have opportunities to share interests and enjoy long-term interactions within the gaming communities in the form of guilds (Lin & Sun, 2015). Single-player games can also enable personal and intimate experiences through branching stories, but their social dimensions tend to be overlooked, both in and outside the game (Stenros, Paavilainen, & Mäyrä, 2009).

Gender nonconforming (GNC) individuals, defined in this study as individuals whose gender expressions do not meet cultural or social expectations, include people of transgender, nonbinary, gender variant, gender diverse, genderqueer, genderfluid, agender, androgynous, bigender, pangender or otherwise identify as other than the sex they were assigned at birth. GNC individuals feel that their gender development and stressful life experiences are tied to their gender identity and gender expression (Grossman, D'augelli, & Frank, 2011). GNC young people are often at high risk for mental health difficulties such as anxiety, depression, suicidality, self-harm and eating disorder (Connolly, Zervos, Barone, Johnson, & Joseph, 2016). Studies show that serious video games—games that focus on learning or health improvements—are useful interventions for young people suffering from depression due to gender identity stress (Strauss et al., 2019). However, not all people would have access to serious, therapeutical games. Choice-based games, games that allow gamers to make decisions regarding the game characters and storylines, may provide potential alternatives to serious games by enabling GNC people to find their identity through storytelling aspects of gameplay, offering connection and belonging (Ruelos, 2018), Choice-based games encompass choice matters, role-playing and choosing your own adventures. Casual games are typically created as a form of entertainment; however, with story immersion and narratives, choicebased games have the potential capacity to induce behavior changes, according to the theory of planned behavior, social cognitive theory and self-determination theory (Lu, Baranowski, Thompson, & Buday, 2012). Narrative-driven, choice-based games can bring forth emotional changes in their players, making them react or reflect on actions and offer empathy during scenarios that a player may not experience in their real-world situations (Isbister, 2016). Through the use of choice-based games, players are given the freedom to follow their preferred path or story. The interactive aspect of these games offers deeper engagement than other forms of media and provides a space where stories may be personalized to reflect a player's own values and wishes.

The positive aspects of casual gameplaying have been widely recognized, and the use and potential use of gaming in mental health has also been discussed in depth (Johnson, Scholes, & Carras, 2013; McGonigal, 2011). In the past decade, scholars, media and the gaming industry have paid more attention to gamers that are not white, male and heterosexual (Partners, 2020; Ruberg, 2019; Shaw, 2015). This study zooms in on a particular group of gamers, GNC individuals, whose gaming behaviors have attracted more research interest lately, but the literature at the intersection of choice-based games and their resilience and

gender identity is still scarce. Gaining resilience within a controlled environment may be one of the only options for some GNC people regarding gender issues due to outside stressors. For example, a virtual game world may provide the space for a transgender woman the option to explore her gender identity without fear of outing herself directly. It may be reasonable to assume such gameplaying can be beneficial, but detailed descriptions from gamers' perspectives are essential for us to gain a deep understanding of *how* it is beneficial. Therefore, this study seeks to examine and describe GNC gamers' experience with choice-based games in terms of self-exploration, mental health, stress coping and resilience. The main research question of this study is how GNC individuals experience resilience building through playing narrative-driven, choice-based games. It tries to identify the common experience GNC gamers share regarding coping and motivation with gender identity and gender exploration through choice-based games.

The research question was examined using a phenomenological approach. Phenomenology comes from the common meaning of lived experiences from groups of people with its purpose leading to describing the essence of that experience (Creswell & Poth, 2018, p. 121). The methodology is often used in game studies, and it is particularly suitable for this study because our purpose is to learn and understand the common experiences of GNC gamers from their own individual perspectives. This study also follows Ermi's (2005) player-centered approach to understanding games through players and their act of playing, which has been an important area of game studies since the mid-2000s.

Exploring gaming experiences through in-depth interviews can fill a gap in the current literature on gaming culture and provide a deeper understanding of GNC games' experiences. Insight into their lives through the expression of gaming can inform us of the values of gameplaying and assist information professionals, teachers, therapists and health personnel with providing better services to GNC users. The findings can give researchers and game designers insight into game patterns and game features that are being used or can be better designed to help with resilience-building activities. It may also open the conversation within the gaming industry and society on building equity, diversity and inclusion from learning about GNC stories and experiences.

#### Literature review

Research on gaming and user experience of the general population has been abundant, but gaming experiences of the LGBTQ+ population have been largely overlooked until the past decade. Recent books on gaming culture, including *Queerness in Play* (Harper, Adams, & Taylor, 2018), *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture* (Shaw, 2015), *Rated M for Mature: Sex and Sexuality in Video Games* (Wysocki, 2015) and *Video Games have always been Queer* (Ruberg, 2019), although they do not mainly focus on the GNC population, have opened up meaningful discussions on gaming with respect to sexuality, gender, identity, diversity, inclusion and social justice. In particular, they noticed that gamers experienced sexual orientation exploration and identity expression during gameplaying (Shaw, 2015; Wysocki, 2015). This literature review provides a brief overview of three research streams that inform this study, including gaming and health, GNC youth's resilience and benefits of choice-based games while explaining the existing research gap.

The health benefits of general gameplaying have been recognized by many researchers, exemplified by several review articles on the benefits of video game therapy to health conditions (Johnson *et al.*, 2013; Carras *et al.*, 2018b). Though the majority of games' intended use is as a form of entertainment rather than being used specifically for mental, emotional or physical health benefits, video games may offer aid to individuals with limited resources or limited access to care (Birk, Wadley, Abeele, Mandryk, & Torous, 2019). Games can let gamers "experience positive emotions, positive activity, positive experiences, and positive

strengths" (McGonigal, 2011, p. 354). They can be used for therapeutical interventions or treatments for conditions like anxiety and nausea in chemotherapy (Redd *et al.*, 1987), attention deficit disorder (Pope & Palsson, 2001), autism (Blum-Dimaya, Reeve, Reeve, & Hoch, 2010; Gaylord-Ross, Haring, Breen, & Pitts-Conway, 1984), depression (Russoniello, 2009; Russoniello, Fish, & O'Brien, 2013), minimal brain damage and attention problems (Larose, Gagnon, Ferland, & Pépin, 1990), posttraumatic stress disorder (Elliott, Golub, Price, & Bennett, 2015) and more (Carras *et al.*, 2018b; Johnson *et al.*, 2013). The existing literature also reveals that positive influences on gaming motivation have the potential to relieve pain and stress through self-determination (Przybylski, Rigby, & Ryan, 2010). Griffiths (2019) reviewed video games as therapy in different roles such as pain management, cognitive rehabilitation, social and communication skills, and psychological well-being, and suggested that video games have therapeutic benefits espeically when they are designed for specific purposes and sub-groups. Even the literature that examines gaming disorders recognizes the positive influences of gaming and points out that gaming offers meaning and personal growth (Carras *et al.*, 2018a; Shi, Renwick, Turner, & Kirsh, 2019, p. 291).

In terms of resilience building, researchers have studied the GNC people's experience with discrimination, abuse and mental state around gender identity and gender expression (Grossman *et al.*, 2011; Testa, Jimenez, & Rankin, 2014) and proposed models such as the gender minority stress and resilience model (Chavanduka, Gamarel, Todd, & Stephenson, 2020) and transgender resilience intervention model (Matsuno & Israel, 2018). All these studies suggest that interventions for transgender/GNC youth's resilience are in dire need and emphasize areas such as self-esteem, social and emotional support, and engagement with people in a similar situation (Grossman *et al.*, 2011; Testa *et al.*, 2014). According to Grossman *et al.* (2011), resilience is "the capacity to cope with adversity, stress, and other negative events as well as the capacity to avoid psychological problems while experiencing difficult circumstances" (p. 105). Although studies have shown the relationship between gameplaying and stress reduction and anxiety coping (see Johnson *et al.* (2013) for a summary of relevant studies), the potential use and benefits of gameplaying have not been widely discussed in the literature on GNC youth's resilience.

A related but less focused research stream, studies on the digital health interventions for the broader LGBTQ+ population, has shown that LGBTQ+ individuals, especially young people, often use the Internet, including online games, for mental health support and information (Lucassen et al., 2018); therefore, digital health interventions have great potential to help this population with mental health and resilience (Schueller, Hunter, Figueroa, & Aguilera, 2019). This literature touches on gameplaying and gamification. For example, scholars point out that appropriate vocabulary and gender-affirming identification can positively impact LGBTQ+ people's mental health and should be applied in digital health technology and game application (Martinez & Tang, 2020; Strauss et al., 2019). A recent systematic review of evidence-based digital health interventions for LGBTIQ+ young people suggests that current research is lacking, and additional interventions are needed for a wide range of health issues for this population, particularly mental and physical health concerns (Gilbey, Morgan, Lin, & Perry, 2020). Although many interventions use game elements, this review only finds two fully gamified interventions, using serious games to treat depression and anxiety in sexual minority youth (Fleming, Hill, & Burns, 2017; Lucassen, Merry, Hatcher, & Frampton, 2015).

Strauss *et al.* (2019) research is one of the few in-depth studies that focus on GNC individuals and mental health interventions using games. This paper stated that digital mental health interventions though serious games are "a feasible, but understudied, approach to consider for" trans and gender diverse young people (p. 1). Through a focus-group study of 14 young GNC people, the authors identified aspects of games that are helpful for GNC young people's mental health, including the ability to play as and express affirmed gender, characters

and storyline, sense of achievement, LGBTQ+ content, autonomy, personalized, role-playing games, finding peers and likeminded individuals, etc. (Strauss *et al.*, 2019). More specifically, O'Brian *et al.* (2022) found that bullied sexual and gender minority youth have used gameplaying to find strength, cope with negative emotions and connect with people/friends.

A few studies at the intersection of gaming and GNC focus on the functions of avatars. Morgan, O'Donovan, Almeida, Lin and Perry (2020) found game avatars provided GNC young people with therapeutic benefits and positive mental health implications because avatars enable them to "explore, develop and rehearse their experienced gender identities, often as a precursor to coming out in the offline world" (p. 1). By providing an additional, creative outlet for GNC individuals to explore their gender and themselves, these mental health interventions and resilience exercises can potentially reinforce who they are and build confidence in their self-image (Morgan *et al.*, 2020). Rivera's (2022) study resonates with Morgan *et al.* (2020) with a case study, stating interaction with a video game avatar can be "a potential cornerstone of healthy identity formation" (p. 485).

Most of the above-mentioned relevant literature discusses serious games, game elements and computer/video games in general. There is a body of literature on choice-based games, but very little has been written on the relationship between this particular genre and mental health or resilience. Ruelos (2018) studied the affective elements of games and the embodied relationship between LGBT/queer games and video games through a social-technical lens. According to Ruelos, gamers gain "embodied experiences and effective connections" through "worlding" and other game elements such as storytelling (p. 35). The interactivity of choicebased games is often studied in human-computer interaction aspect of game research (Iten, Steinemann, & Opwis, 2018). Unlike books or films, which are mainly passive experiences, choice-based games need active engagement from players to continue the story. The content within games allows the user to feel a certain way, whether it is happiness or anger, and can impact behavior or attitudes within both entertainment and serious games. To strike at the core of a gamer, game choices must be perceived as meaningful (Iten et al., 2018). The additional level of immersion offered for gamers allow them to feel empathy and emotion, and players are able to influence outcomes through their own efforts when given meaningful choices (Isbister, 2016).

To sum up, the current literature on gaming, health intervention, GNC population's resilience and choice-based video games all points to the potential of using choice-based games to increase GNC individuals' gender resilience, but not much research has been done on the role of casual games and how/why they can serve for this purpose. By examining gameplayers' experiences with resilience from their own points of view, this study tries to fill the gap in the literature and provide direct evidence regarding how GNC individuals engage with choice-based games in the hope of supporting the health of this marginalized population.

# Methodology

To understand the common or shared experiences of GNC individuals' resilience-building through playing choice-based games, we followed the classic phenomenological approach. Phenomenology, as a discipline in philosophy, was established by the famous German philosopher and mathematician, Edmund Husserl, who argued that deep meanings of consciousness could be found by examining experiences from the first-person point of view (Laverty, 2003; Smith, 2013). Phenomenology is defined as the study of structures/essence of consciousness as experienced, approached explicitly "in the first person" (Smith, 2013). As a methodology, the purpose of phenomenology is to "reduce individual experiences with a phenomenon to a description of the universal essence" (Creswell & Poth, 2018, p. 121), and a phenomenological study "describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon" (p. 121). Recent years have seen the

increasing use of phenomenology in game studies to gain a deep, wholistic understanding of players' (particularly nonmainstream players') unique experiences and know such experiences impact their lives (Gattet, 2017; Harrison, Drenten, & Pendarvis, 2016; Pak, 2018).

Although the phenomenological approach has been used widely, many scholars may still confuse it with other qualitative methodologies such as grounded theory and ethnography. The major differences between phenomenology, ethnography and grounded theory lie in their purposes and outcomes. Simply put, ethnography focuses on "describing and interpreting a culture" and generates rich description and analysis of "patterns of cultural themes; "grounded theory aims to develop a theory from data and results in a substantive theory "grounded in data from the field" while phenomenology emphasizes "understanding the essence of the experience" and reports "how the phenomenon was experienced using significant statements and discussing meaning of themes" (Creswell & Poth, 2018, pp. 163-166). The research outcomes of phenomenology are therefore more descriptive than other those of the other two methodologies.

Following the classic phenomenological approach [1] laid out by Moustakas in his influential *Phenomenological Research Methods* (1994), we entered into the study without any judgment or assumptions about the phenomenon, called a suspended discernment or an epoche – a clearing of the mind from any biases (Moustatas, 1994, p. 75). This approach enabled us to pause on things that might interfere with a fresh vision and to view statements with equal value rather than placing more weight on one over another (Moustakas, 1994, p. 115). Bracketing was easy for one of the authors, a cisgender nongamer, but relatively challenging for the other author, a nonbinary gamer. Such combination, however, enabled us to check each other's presuppositions during collaboration. Therefore, we were able to achieve sufficient objectivity to ensure the validity of the research findings.

This study examines GNC games' experiences to provide insight into the intersection of the gaming and queer community. Because of the exploratory nature of this study, the phenomenological approach enabled us to gain a deeper understanding of this phenomenon by discovering what gaming experiences shape the identity of the participants.

#### Data collection

The study population was GNC people aged between 18 and 34 who had played choice-based games before the interviews and had had experiences with resilience regarding their gender identity through choice-based games. The age range was 18–34 because certain age groups grew up with video games, and the highest percentage came from the 18 to 34 age demographic (Clement, 2021).

Upon the approval by the Institutional Review Board, we started to recruit participants from online gaming communities, including gaming servers from Discord, Instagram, Twitter, Subreddits and Facebook groups, by making public recruitment posts. The initial goal was to recruit 10–15 participants, hoping to reach data saturation within this range. Eventually, data saturation was achieved before reaching the max amount of participant interviews, and the recruitment ended at 12 participants. Table 1 below shows the basic information about each participant:

The study used semi-structured, in-depth interviews to collect qualitative data, focusing on how the participants felt about their gaming experience with choice-based games. Each interview took 45–90 minutes. During each interview, we first gained oral consent from the participant before the interviews occurred and then engaged the participant in a conversation following a semi-structured interview protocol (see appendix for the interview protocol). The interview had three parts: 1) opening and questions about the participant's life experiences; 2) questions about the gamer's experiences with choice-based games and 3) closing, recap and soliciting additional comments. The interviews focused on what participants had

| DTS<br>1,2    | Participants | Age | Gender               | Pronouns  | Occupation            |
|---------------|--------------|-----|----------------------|-----------|-----------------------|
| ± <b>,</b> =  | P1           | 31  | Transfem             | They/Them | V.R. company employee |
|               | P2           | 24  | Nonbinary            | They/Them | Digital artist        |
|               | P3           | 26  | Nonbinary            | They/Them | Resident assistant    |
|               | P4           | 24  | Transmasc/Non-binary | They/Them | Graduate student      |
|               | P5           | 34  | Genderfluid/Transfem | She/They  | Musician              |
| 204           | P6           | 21  | Transfem             | She/Her   | College student       |
|               | <b>−</b> P7  | 33  | Non-binary           | They/Them | Graduate student      |
|               | P8           | 31  | Transfem             | She/Her   | Instructor            |
|               | P9           | 25  | Non-binary           | He/They   | Musician              |
| Table 1.      | P10          | 30  | Genderfluid          | They/Them | N/A                   |
| Participants' | P11          | 28  | Transfem             | She/Her   | Writer                |
| demographics  | P12          | 22  | Transmasc            | He/They   | College student       |

experienced in terms of gender identity, building resilience and choice-based games and what situations participants had that affected their experiences with the phenomenon. The interviews were conducted online via Zoom and recorded in the Zoom app. After their lived experiences were recorded, the data were transcribed using Zoom or Otter.ai and then cleaned before analysis. Data cleaning removes or edits typos, duplicates and incorrect formatting on text.

## Data analysis

The transcribed interview data were analyzed using Nyivo, a qualitative data analysis software package. We analyzed each interview transcript soon after the interview was conducted. Each interview was coded openly and sorted into a list of significant statements. The analysis focused on how participants were experiencing resilience and gender identity through the use of choice-based games. All statements had equal value and were not prioritized as one being more important than another. This method is defined as horizontalization for viewing the data (Creswell & Poth, 2018, p. 129). The statements were sorted in a nonrepetitive and nonoverlapping manner. The refined list of significant statements was then grouped into clusters of meaning to form themes. Appendix 2 shows examples of significant statements and their meanings. The initial themes included resonating experiences, character creation (as a form of gender exploration), exploration in a controlled environment, self-exploration and experimentation within games, games with positive inclusive features, storytelling, viewing experiences from different perspectives. branching options, your actions have meaning (agency), building character relationships (platonic or romantic) within games, representation within games matter, strong connection between gaming and gender identity and more. These themes were then combined, refined and synthesized into six major themes based on the clusters of meaning, reported in the next section.

Textural descriptions were created based on what the participants experienced with resilience building and gender identity situations within choice-based games. The descriptions included examples from participants to further explain these situations and their context. The reporting of the found essence of this study was created through a composite description. This was done by referencing back to the structural and textural descriptions that present the essence of this phenomenon. It focused on the common experiences of participants and offered a reflective view of the phenomenon with clarity by combining these common themes that were more than just a re-telling of each participant's experience.

Choice-based

games and

resilience

building

## **Findings**

This section reports the major themes regarding identified in this study. It may be worth noting that nearly 50 different game titles were brought up during the interviews, showing the diverse gaming backgrounds the participants had. Although not essential to the descriptions of study themes, they are critical to the gamers' experiences. We present the game titles in Appendix 3.

Theme 1: character creation: exploring gender identity through an avatar

All participants spoke of using character creation features in games such as *Skyrim*, *Mass Effect* and *Dragon Age* to explore gender identity. This capability ventured into opportunities for using controlled environments to experiment and experience different scenarios and situations they may not have had a chance to go through in the real world. Self-exploration gradually, or instantly for some, became a driving force of how they perceived a game and the events that occur within it. Having a degree of choice without consequence helped some gamers understand their identity and become comfortable with who they are. Games that offered customization options, from physical appearance to decisions made to enrich storytelling, provided situations for players to intentionally make unique choices to shape how their characters can present themselves.

Participant 3 specifically used games to push the boundaries of gender expression and gender roles. If they created a masculine character, their choices would lean toward feminine actions. This playstyle swapped for them if they played a feminine character. They mentioned their actions were unintentional, and they realized this pattern only after they accepted their gender identity. These actions provided an outlet for this participant to present in androgynous ways, which appealed to them and went beyond the normal expectations of what is expected of a man or woman.

Some games had gender-locked features, such as races in MMORPGs, or once you select one gender at the beginning, you cannot change it. Games, such as *Final Fantasy XIV*, have been gradually removing this by including additional gender options for previously gender-locked playable races or clothing that could only be worn based on a playable character's selected gender. For gamers that identify as nonbinary or genderfluid, having the freedom to choose what you want when you want it is important to them. For example, Participant 2 primarily focused on the character creation process of games they played. *Animal Crossing* was mentioned during our interview due to the lack of gender-locked options and freedom to change appearance or gender at any time within the game. The lack of consequences and ease of changing made it a simple process for them to go from one gender to another, depending on their preferences.

Participant 1 went into character creation with the intent to try something new that they wanted to explore and was unfamiliar with. They said,

I created a character and just from the get-go I decided this this character is going to look different. He's different enough already, but he's queer and he's pansexual which are things that I was not at all familiar with on a personal level. Up until that point I only observed good friends and acquaintances living in that space. I had never experienced anything firsthand but playing as a character and settling into that character in that closed-off space, with open-minded people, helped me like realize this is actually a reflection of myself. And yeah, I realize my gender isn't congruent with the one that I've been identifying as my entire life. That's what kind of really started it for me.

Although the customization feature typically initiated at the start of a game is not the primary focus for most games, certain types of gamers will spend most of their time in this one area. Others will even prioritize character customization and primarily use this portion of a game, choosing to return to the character creation feature despite having the ability to continue the

pursuit of a main story within the game. Some participants mentioned spending a very long time crafting characters that they felt satisfied with without realizing how much time had passed by while they were working on them. Several participants in this study were able to begin their journey of gender identity exploration through the use of character customization and creation features that are included in several game genres such as MMORPGs, choices matter and visual novels.

One game, Cyberpunk 2077, offered an interesting take on the character creator by providing customizable genitals. Several participants brought this game up specifically for this unique feature. Participant 2 commented:

[...] that's one of those games where you like you have full control over like how your character appears. You can like change the morphology of your face and your body, pretty exactly. I know that there was an interesting choice that the company made regarding your body presentation, your gender presentation, is that they didn't like no features of your body wherever gender locks. You could pick whatever you wanted. I know there's some in particular, like it was an interesting choice, that they've allowed you to customize your genitals as well.

Narrative-type games that incorporate the playable character into the story will address the character by using pronouns based on the selected gender – with some letting the player choose their pronouns without basing it on the selected sex of the character model. Some participants voiced that they were unaware that they would almost always choose the gender of the character they identified as. Their choice would gravitate towards what aligned best with them, and it was not until they intentionally were exploring their gender identity did they connect the dots on their usual player choices. After becoming aware, exploration of different concepts was approached, such as what ways would best express themselves through an avatar. Participant 10 brought up that this form of gender exploration made it possible for them to genuinely figure themselves out when they normally would not have been able to in the real world due to safety concerns. With the mention of exploration of gender with safety in mind, this leads into the next section that covers exploration and experimentation in games.

#### Theme 2: self-exploration and experimentation in games

Gender expression and experimentation, such as trying on different types of clothing, styling or cutting hair, or wearing nail polish, assisted over half of the participants in finding their identity outside of the binary. This was found in both virtual worlds and the real world. With the exploration of gender identity through these games, all participants spoke about their lived experiences and how this theme was valuable to their journey. Participant 12 expressed their perception as feeling strongly about exploration because identity is tied so deeply to them and everyone they know. Having games that allowed them to connect with different parts of themself was immensely important to them. They included that a large part of gender identity, and the discovery of one's gender identity, was the process of experimentation. They believed having options that let players explore themselves in games was one of the most crucial areas where they found awareness of their identity – at that intersection of gaming and gender expression.

When Participant 1 was unsure of what pronouns they associated with themself, they would pick up a role-playing game and select a playable character. They tried female leads to test if being spoken to in a feminine sense felt right, then assumed the role of the female lead to play with those feelings. It gave them space to become aware of how they felt and reflect on that experience. This type of experimentation was applied to other games, such as *Hades*, for them if they wanted to explore the dynamics of platonic or romantic relationships with NPCs. Their experience was as though they were directly interacting with other characters rather than only involving the main character. They would then focus on how they felt about one

NPC versus another to allow themself to consider their feelings on their gender identity and sexual orientation.

There was a sense of gratitude and satisfaction participants felt from being able to play a character that exhibited aspects they would like to see in themselves. Participant 7, who is nonbinary, felt seen in a video game and had a sense of belonging there when they were able to play an androgynous character. They described it as "a way to be outside of myself" because they did not view themself as having an androgynous body type, and playing a character that could present the way they wanted to be was their way to enter a world where they were not misgendered. This includes games that may not have a visible character or avatar but instead offer pronoun choices for a player.

The fear of being harmed or in danger in the real world if attempting to experiment with feelings around gender presentation brought some participants to virtual worlds. These game environments offered gender exploration in a safe place to assist with what felt right to the gamers. Some participants found that playing as a woman and being referred to as she/her/hers validated themselves through a game's interactions and became more engaged with the game and story. Others could examine how they felt playing as a man versus playing as a woman versus playing an androgynous character and consider how it related to them.

With the combination of choice-based games, some participants would prioritize pushing the boundaries of gender roles and expectations. One non-binary interviewee, Participant 3, stated:

Any game where I get to play a cisgendered female character: what are the masculine traits that I can embody? Whenever I play [male] characters, what is one of the feminine traits that I can embody? Because, unfortunately, a lot of things are treated as binaries, or trinaries. Giving a good, bad, and neutral option. So, I kind of like to be able to push my own boundaries within games and use them as reflections of myself.

These aspects can be explored on a physical character model and through decision-making choices in games. Choices provide moments of reflection for players, such as how their character reacted to a scenario and how it may affect the playable character.

#### Theme 3: resonating experiences

Most participants began gaming early in their childhood, while some either were already in the industry or planned to advance their education to work on making games. Game immersion became part of several of their lives as they matured. Happiness could be heard through voices as memories of their first game or console were brought up though a couple mentioned their first game was played through MS-DOS. Experiences that had a strong impact on participants overlapped with different themes. However, what made these unique yet in a common realm was that the participant would instantly light up as they spoke of their profound moment. It struck a chord within them and might have been their driving force at the intersection of being a gamer and a trans person.

Participant 5 shared her experience with games as being a haven for her to experiment and see how things worked out over time. Her game of choice was *Skyrim*, and she would focus on only making specific types of choices to view how she would react to them. Once she started seeing how her choices affected the game, she would delete the character and start over from the beginning. Over time, she picked up on a pattern she was going through. She would create women to be her main character and seek companionship with other women in games. She reflected on her experience at that point and would ask herself, "Am I a boy? Am I a girl?" Games gave her the perspective that she needed to start exploring herself in the real world. She spoke of the confidence and reassurance gaming gave her that helped her realize she was not alone with her feelings of gender and expression.

The option to let the gamer present as a trans character, whether that be with pronouns or appearance or background information peppered into their story, despite any binary limitations was deeply appreciated by several participants. Testing these features within a game environment, a controlled space without judgment, helped participants become comfortable with who they were. Some reflected on their experiences of when they realized they were GNC while playing games such as *Life is Strange* or *Dragon Age*. Many expressed moments of either instant or gradual realization through main characters that represented the gender or presentation they themselves wanted.

Participant 1, instead, focused on receiving a unique perspective through multiple points of view from different narrative games. Games such as *Detroit: Become Human* resonated with the participant due to playing from multiple perspectives with three main characters. Each character brought a different background, a different need and having to decide situations for them would "flavor questions differently" from understanding where they are coming from. The game has multiple endings, with the player's choices determining what happens to the main characters and how their stories will conclude.

The same participant had strong feelings for *NieR:Automata* through learning more about the characters and feeling empathy for their plight and situation. The characters in this game were being used in a war and were considered dispensable. The participant considered what the characters were feeling during their journey despite that the characters were not human and did not encounter feelings or emotions as we do. They considered their human experience of watching the events unfold and could view how their perception of things differed from what was perceived by the characters. They ended their recollection of the memory with: "[...] part of the message there is your experience, no matter what you're going through, whatever you're feeling, it's valid. You have a place in the world. It just had such an impactful message."

# Theme 4: positive inclusive features in games

Games that participants enjoyed included positive inclusive features such as options for decision-making moments. Some participants brought up games that treated situations or characters part of the LGBTQ+ community as a normal addition to the story was another reason why they enjoyed the games they played. "My character [in *Dreamfall*] meets the person who owns the place, and she is lesbian who has a wife. She freely talks about her life. It's a positive representation of a lesbian that's not hypersexualized to my memory of it. It was so casual. Just normalized, entirely normalized." Another brought up *The Zero Escape* games with its director, Kotaro Uchikoshi, creating queer characters and representing minorities in the series. Uchikoshi has even asked feedback from fans about the sexuality of a beloved character, with almost 65% answering that Snake from 9 Hours 9 Persons 9 Doors is gay (Uchikoshi, 2021).

Several participants enjoyed choice-based role-playing games that incorporated options to create androgynous characters or any queer appearances or relationships and dynamics with other players or NPCs. This included games that offer neutral pronouns, such as *Monster Prom* or *The Arcana: A Mystic Romance*. Though most games still provide a binary split between male or female at the start of a game, more recent games either do not list sex and provide body type options or offer flexibility with customization options to select features that are outside of a stereotypical or assumed male/female choice.

With options for body type and pronoun selection, gamers were able to create or play as characters that may have bodies that do not match the assumed pronoun. Several participants expressed their views and feelings on their body image not reflecting how they believed it should be or how they would want it to be. This feeling can be reflected in a game when given the option, and most narrative games will honor the pronoun change and provide

a positive experience with no misgendering such as *Our Life: Beginnings & Always*. Some virtual worlds carry a kind reminder that there should be respect for one's identity, and pronouns should not be assumed by the way a person physically appears.

Theme 5: storytelling and involving the player

The ability to view stories and situations from different perspectives was important to most participants in this study. Being able to play another character, regardless of their gender, offered moments of insight of the character's situation and background. Participant 1 expressed their thoughts on understanding different situations through another point of view: "I think that's a really valuable thing to try and do is to try and see things from other people's perspectives. Try and keep the possibilities in mind. You never really know what someone's going through – what their story is."

To continue with this shared experience, other participants expressed that narrative games let themselves assume the perspective of characters that identified as genders outside of their assigned ones. It provided moments of empathy, experiencing emotions from a different view and understanding how a story may unfold based on the playable character's background or personality. This type of experience gave some participants moments to reflect on how they act because of their gender identity. Other participants solidified their feelings of validating their queerness through watching other queer characters in a game. Participant 6 spoke of their elation with the dynamic between Max and Chloe from *Life is Strange*. The journey of those two characters kept the player invested in the progression of the game and story.

Storytelling was important to several participants as well as finding representation of diverse characters, whether it be through their background, culture, community and so forth. Immersive storytelling was a key factor for Participant 7, mentioning that they feel more connected to a character and more likely to play the entirety of a game before focusing back on their large Steam library. The feeling of wanting to know more and venture further into a story was compared to reading a novel. Participant 4 expressed their interest in a blank or silent protagonist story: "I think it helps me have a deeper understanding of how I perceive gender. So, choices in certain games make the character I'm controlling a completely blank slate – you can project however you'd like on to them." This self-inserted character type may immerse a player into the story as though they are truly a part of it.

Though games directly involving a trans or GNC character are very few, Participant 11 spoke of a game, *One Night, Hot Springs*, that focused a transwoman and how her story and different paths helped the participant understand herself on a deeper level when being unable to do so for two decades:

The story actually stars a 19-year-old living as a transwoman named Haru, being invited to a girls only hot springs trip. Haru is afraid to cause commotion or bother others, so she has isolated herself and is unable to begin the reassignment until her birthday at 20. I am still playing through the [games] myself, but the choices legitimately lead to completely different endings. In one, staying awake to talk to one character named Erika about being trans leads to a new friendship, and this helped me with a lot of phrasing and gave me a great view of the world. Saying no to Erika is an option and I was worried would be an isolative choice like choosing not to take a family bath. It instead led to Haru reconnecting with her childhood friend, Manami, who has always supported Haru's transition but was wanting to know more of the pain Haru didn't share about their earlier days. I am personally looking forward to the full endings. I am also seeing it as a way to perfectly and subtly research myself in a way I have coped with for over 20 years now.

The participant was unable to have a similar experience as the main protagonist of *One Night, Hot Springs*, such as bonding with others or being open about her gender identity. She was concerned about her choices in the game and genuinely cared about how her actions would

affect Erika or Manami. With these actions coming with resulting events or consequences, the next theme focuses on the player's agency in games with their outcomes.

Theme 6: your actions have meaning

Actions having meaning within games and their stories played an essential role with participants. Choices in games offer a sense of agency that people may not truly have. Participant 6 shared that whenever they can choose and design a character, with a focus specifically on being able to choose their gender, they feel more connected with what their character does and feels. The experience does not feel like just a character they are controlling; it feels like they have a genuine voice in the world.

The ability to view the "what-ifs" of different moments and scenarios was important to some people. It gave gamers a space to try out one choice that they may have naturally would go within the real world. If they backtrack in the game and try the scenario again with another decision, it allows the player to experience a moment they would have missed otherwise. The appeal of having a say in something that directly affected the actions and outcome, even if it was not related to the primary story of a game, had some participants feel more connected to a game.

One more significant point Participant 7 made came from the concept of agency and having control over a virtual character compared to how the real world removes the certainty of control. There was a sense of not feeling that there was actual agency over their own life and compared it to a school policy in some US states that required students to be outed if they choose to use different pronouns. This takes away their choice of who to come out to and how they would come out, bringing its own issues of safety for the students. The same participant mentioned that playing games was their way to feel like they have more control in their life by having full agency over their character, moving their avatar to scenarios that they felt satisfied with. They believed that "The more kinds of choices that you can offer to somebody, the more they feel like they have control over their life or their character's life."

Participant 8 placed emphasis on how her actions would cause characters in games to react to her. Her decisions in her choice of game, *Dragon Age II*, originally started as "knee jerk reaction choices" to play authentically as herself. She later realized that the outcomes of her playthroughs would end up with her character being in romantic situations with other female characters. With her results, she realized she was playing the game as the woman she wanted to really be. It was the catalyst that had her questioning her nature and initiated her gender and sexual orientation exploration.

#### Discussions

In this study, GNC gamers spoke of their experiences with gender identity and narrative-driven, choice-based games. Virtual worlds provide controlled environments for players to explore their identity, possess agency in their world and gain resonating experiences. The ability to customize or create their playable character, and other positive inclusive features, enriched their journey through immersive storytelling. Participants were able to view the connection with their gender identity resilience by gaming through these instances. It came to them through moments of better knowing themselves, affirming their identities, building relationships and communities, and finding inspiration through games. Coping and motivation came to them in several forms that solidified their resolve to live authentically with themselves.

All participants emphasized Theme 1 (Character creation), and this feature provided many appealing ways gamers could experiment and experience (Theme 2) their gender identity and expression through controlled environments. These findings validated the previous studies

on the avatar (Morgan *et al.*, 2020; Rivera, 2022) and the values of queer gamers' exploration of gender and sexuality within gaming realms (Ruelos, 2018). Character creation and customization with participants also focused on being able to project oneself onto the character to try alternate selves or experience qualities they may not have in the real world (Isbister, 2016). For many participants, narrative games with interactive moments provided meaningful ways gaming was experienced (Rivers, 2019). This relates to Theme 5 (Storytelling and involving the player) and Theme 6 (Your actions have meaning). As Iten, Steinemann, and Opwis (2018) argued, meaningful game choices may resonate with gamers. Those individual experiences offered moments of inspiration for the participants and created lasting memories of how they felt when their event happened.

# Gender and gaming

Choice-based casual video games provide an additional platform for users to experiment with gender aspects that validate how they feel. If a GNC person does not have a safe space to explore themself in the real world, using narrative games offers a controlled area to explore parts of their identity they would not have been able to otherwise (Schueller *et al.*, 2019). This may give hope to a gamer by reinforcing motivation or coping with a restrictive environment where they cannot safely explore gender.

Features such as character creation, romanceable NPCs or choices that provide character development opportunities assisted with shaping the gender exploration experience of the participants. The original intent of most games probably did not consider it to be used in this way, which reflects queer play and how gamers will interact with games to meet their own satisfaction with the virtual world. Gaming as a way to experiment with gender, trying out gender-specific features that can change without consequences and reflecting on their choices made in games gave GNC gamers a process to fulfill themselves with their gender journey.

Another prominent theme with the participants was delayed exploration and using games to explore gender identity. Some participants were under stressful or unsafe conditions, such as living with a transphobic family or did not consider exploring their gender identity until reaching adulthood. While gaming offers a controlled environment to experiment with gender and feelings, it can be experienced by any type of gamer at any age. This group of gamers had a similar experience of outside stressors preventing them from actively investigating themselves and using gaming, either intentionally or without realizing it until reflecting on their actions, as an outlet for gender exploration.

Despite not being able to transition medically or socially at an earlier age, these gamers had unresolved questions about their identity and used video games to answer those questions. Some concluded that their birth gender was incongruent with how they felt, while others discovered the fluidity of their gender identity. Some only found more questions rather than a definite answer, but having a resource to safely explore themselves freely initiated their exploration of their authentic self.

# Sexuality exploration in gaming

This study found GNC people used gaming not only to explore their gender identity but also in combination with sexual orientation exploration, which corresponds to the works of Shaw (2015) and Wysocki (2015). In some cases, for participants, the primary objective of playing a game was to focus on in-game romance. Sexual orientation more than likely will change with the realization of one's gender identity, and it is understandable how gaming exploration of oneself encompasses both topics. If a gamer lived as a heterosexual cisgender (meaning one's gender identity aligns with their birth gender) male and then came to the realization that she is a transwoman who likes women, it would cause her sexual orientation to be homosexual.

Using games that incorporate romance and dating may offer moments to play and explore what a gamer likes or dislikes concerning their identity.

In-game romance appears to be increasingly common or at least a feature included in role-playing games and can be found in the triple-A studio and indie games. For trans gamers, older games such as the first few from *Harvest Moon* or *Rune Factory* only offered heterosexual relationships, which limited the experience for gamers who are bisexual or homosexual but later developed same-sex options, which is also available in other titles such as *Dragon Age: Inquisition* or *Mass Effect 3*. Choice-based games offer identity exploration on a larger scale than only gender and are worth mentioning given the results of this study.

# Character creation features vs choice-based features

The main objective of this study was to explore what gaming experiences shaped the identity of the participants through choice-based games. Similar to Strauss *et al.* (2019)'s findings about LGBTQ+ content, autonomy, role-playing, etc., the results of this study demonstrate that actions, the sense of agency and compelling narratives do offer a space for gender identity exploration and experimentation. However, the piece that tied all participants together in common experiences came from character creation features and the choices they made with their characters in games. In any game that includes character creation and customization elements, it is typically right at the beginning of the game. In terms of its use, it is minimal compared to the duration of the rest of a game with their stories, their gameplay and their end goals. Despite this and how briefly it is experienced, it was a driving force for how GNC gamers spent time exploring themselves. The avatar is something they will be stuck with for the remainder of their game, and it becomes a reflection of themselves in the game world, which is consistent with Morgan *et al.* (2020)'s findings.

It was important to the participants how they presented themselves in a virtual realm even though NPCs cannot truly judge their aesthetic choices or if playing online that other players might not have a clue as to who is controlling another character. Picking features and appearances is still choice-driven, but the decisions are specifically about the representation of the character a player is controlling. It is an extension of themselves and their actions, whether it comes from familiar themes they are comfortable with or experimenting with something new within themselves.

#### **Applications**

Understanding the common experiences of GNC games' resilience can be valuable for researchers, game designers, teachers, therapists, health personnel and others who may want to explore additional ways to promote services such as mental health wellness to GNC individuals. Confirming previous studies (Carras et al., 2018b; Gilbey et al., 2020; Morgan et al., 2020; Ruelos, 2018; Schueller et al., 2019; Strauss et al., 2019), gaming with a focus on choices (especially character creation and avatar choice) can provide motivation and resiliencebuilding moments for gender identity exploration, which can be used for mental health benefits. This can offer an alternate solution for people with limited resources or for those who do not know where to go. That may include GNC individuals who are unable to transition safely due to their circumstances. Exploring the topic of gender identity and using casual games for resilience building is vital for opening the discussion on options and resources for users who want to discover themselves through entertainment. This branches into game designers becoming mindful of their audience and providing inclusive features in their games. Some game elements identified in this study, such as in-game romance, are rarely mentioned in other studies. The findings may also provide information professionals with better services and resources for GNC patrons and clients.

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For transgender gamers, character creation features appear to be a good source for gender exploration. This can be used for people who are questioning their gender, are unable to safely explore themselves in the real world or for experimenting with different physical features with no resulting consequences. Games can include options for nonbinary representation, such as not labeling a type male or female and simply displaying the options a player can cycle through and including they/them pronouns as a choice if the player will be referred to in-game.

#### Conclusion

Resilience building can exist within virtual worlds that place emphasis on choice-driven narratives for GNC gamers. These experiences were told through GNC gamers who used casual games to explore their gender identity, ranging from titles such as *Detriot: Become Human* to *The Witcher*. Each theme discovered in this phenomenology study provides insight into the shared experiences and how the participants achieved gender identity resilience through gaming.

Outside stressors may create difficult situations for GNC gamers, and gender exploration can be unsafe in the environment around them. Games provide a space where a gamer can experiment and reflect on themself and their choices without the same consequences as in the real world. Most games had a focus on a story that did not prioritize gender exploration, yet it still occurred through the way GNC gamers interacted with the virtual world.

The findings from this study are important for understanding GNC and queer gamers that may not have the means to explore their identities in the real world or would like to use a controlled space for experimentation. Further investigation into the ties between gaming and gender identity should be explored to gain additional insight to deeper questions such as other areas of gaming that provide a rich, exploratory experience, how features such as including diverse characters and content in games enhance and promote feelings of validity for its minority gamers and how positive games can bring mental health benefits. Current literature and research are limited on these topics. Expanding this may lead games in entertainment, and public resources for gender-variant people, into diverse and inclusive opportunities in the future.

# Note

 The classic phenomenological approach refers to the Husserlian phenomenology, which is different from Hermeneutic phenomenology. This paper does not discuss the differences between these two approaches. For a good overview and comparison, see Laverty (2003).

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# Appendix 1 Interview protocol

#### Script prior to interview:

Hello, my name is XXX and I'll be leading our interview today. Thank you for making time to speak with me for this study. This interview will take approximately 45–90 minutes. If you need to take a break or stop at any time, please let me know.

The questions in this interview will ask about your experience with gaming and background as a gender non-conforming person. There are no wrong answers to these questions. I'd like to record the interview, with your permission, and verify that you have reviewed the consent form. Do you have any questions?

Choice-based games and resilience building

# Questions about life experiences:

- (1) What was a moment that made you realize you were gender variant?
- (2) What is your experience like so far with your gender identity?
- (3) How do you feel in terms of social or emotional support regarding your identity?

# Questions about the gamer's experience:

- (1) What got you into gaming?
- (2) Can you recall a scenario from a choice-driven game that really resonated with you?
- (3) Did any choice-based game(s) help you cope with certain situations or motivate you? If so, please tell me about this.

# Closing, recap, and additional comments:

- (1) In what ways do you find gaming connect with your gender identity?
- (2) How have choice driven games made you feel about your gender identity?
- (3) Is there anything else you'd like to include?

# Appendix 2

Selected examples of significant statements from participants with gender identity and gaming and their meanings

#### Significant statement

#### Meaning

P2: I always gravitated towards the character creation kind of games. I remember being really excited about the *Pokemon* games that came out in 2013–2014, *X* and *Y*, the first games where you were able to customize your character. Like, really? More-so than you ever could previously. And again, just having a variety [of options] and a variety of control over myself. It's something that I really gravitated towards P6: I could examine how I felt playing as a man versus playing as a woman and consider how it related to me. I was happier and more engaged in games where I could play as a woman. Those games gave me a safe place to experiment with my feelings around gender and gender presentation. I was able to play as characters whose presentation matched my gender, and who were treated as my gender, when doing so wasn't safe in real life

P7: I think where there either is a non-binary character or even just like any sort of queer character that I feel emotionally invested in, I want to see where the story takes them just like reading a novel. You know, I'd be more likely to play through the story for that character to see what happens to them even if I'm not playing that particular game at the time. Just more representation of stories about us and our lives matters to me

Character or avatar creation and customization offered gamers opportunities to present their main character in a way they were happy with. The ability to change their appearance gave a sense of control and satisfaction

Interacting as different types of characters and genders allowed gamers to ultimately decide what felt best for themselves. Virtual worlds offered controlled spaces to provide a safe environment for gamers to explore and experiment with their identity

A compelling narrative can pull gamers into a character's journey where they may feel empathy and compassion. Inclusion of the LGBTQ+ community can provide perspective to the player

Table A1. Examples of significant statements and their meanings

(continued)

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DTS 1,2

# 218

Significant statement

Meaning

P6: In Tell Me Why where one of the main protagonists, a trans man, Tyler, finds out about a gender conversion therapy his mother was going to send him too. It's a really powerful moment in the story itself, but as a transwoman it felt like an actual kick in the face. It didn't stop me from becoming who I'm becoming, it enhanced what I felt about myself

Strong moment(s) in a game that resonates with the gamer. It reinforces how they feel about themselves

P7: I'm sure that it's not just my experience as a queer person, or as a genderqueer person, that sometimes we feel like we don't really have agency over our own lives[...] It's really easy to feel like you don't have control over your own safety. One way to kind of escape that feeling of not having control is through playing games, where you have full agency over your character. The more kinds of choices that you can offer to somebody, the more they feel like they have control over their life or their character's life

The choices and control a player has are important. Digital spaces provide agency that a person may be lacking in the real world

P10: I actually got that one [game] on my Switch, because it was on sale. It's like, some sort of monster dating sim thing [, Monster Prom,] and they let you pick up from a handful created monsters, but they let you choose your pronouns. And that just made me so happy when I started playing that game. Like, that was just something I did not know how much I wanted until I had it

Inclusive options in games, such as pronoun choices, improve a player's experience when they can connect to a feature that represents themself

#### Table A1.

# Appendix 3 Games title identified through interviews

#### **GAME TITLES**

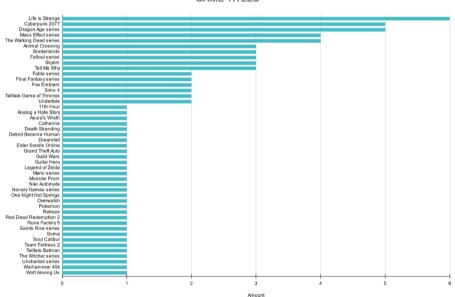


Figure A1. Games title identified through interviews

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