Roll for Insight: Understanding How the Experience of Playing Dungeons & Dragons Impacts the Mental Health of an Average Player

Abstract: Dungeons & Dragons (D&D) is a fantasy tabletop role-playing game published by Wizards of the Coast. Evidence shows that D&D is being used as therapeutic practice by clinical psychologists, and the reported success of these interventions indicate that it may have positive outcomes for its players. However, there is little research that establishes, from a psychosocial perspective, how playing D&D provides opportunities for supporting frequent player's mental health. Using semi-structured interviews and a reflexive thematic analysis, we aimed to understand better how playing D&D interacted with players' well-being psychologically and socially, as well as exploring factors that may prove challenging or problematic in the therapeutic context. 6 men, 2 women, and 2 nonbinary people participated in the study. Analysis illustrated several processes that are supportive for players' mental health. These features were identified as five key themes: escapism, exploration of self, creative expression, social support, and routine. These findings highlight the transformative potential of D&D in a therapeutic setting, offering insights into its positive impact.

Keywords: mental health, *Dungeons & Dragons*, role-playing games, thematic analysis

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1. INTRODUCTION

This research delves into the exploration of meaning-making and mental health among frequent Dungeons & Dragons (D&D) players. While D&D represents only one type of pen-and-paper game, it is the most common. Our objective is not only to examine documented experiences but also to report on the potential positive effects of processes within the game, offering insights into how it can enhance mental well-being on both psychological and social fronts.

To underscore the significance of our study, we will provide an overview of existing literature on role-playing games (RPGs) and D&D, explore motivations behind engagement, outline reported advantages of RPG participation, examine the current use of D&D as a therapeutic tool, and explore its therapeutic merits across diverse groups.

In this study, the term "mental health" is employed to encapsulate players' emotional, psychological, and social well-being within the specific context of engaging with D&D. The World Health Organization (2022) defines mental health as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community." This definition recognises that mental health encompasses more than the absence of a mental disorder. Rather than focusing solely on diagnosable mental health issues, our research explores the broader implications of participation on the players' overall mental well-being. Adopting a holistic perspective, we aim to provide a nuanced understanding of how D&D contributes to the overall mental health of players.

RPGs exist at the intersection of four different phenomena: roles, play, games, and media culture (Zagal and Deterding eds. 2024). At their core, RPGs build from a fundamental form of play (makebelieve) and social reality/identity (roles), which give the games structure. In most tabletop role-playing games (TTRPGs), one player takes on a facilitator role and guides the other players through a story. In D&D this is the dungeon master (DM). The role of the player is to control their own individual character (Kilmer et al. 2023). In D&D, each player is invited to create a unique character and assigns them a

class (cleric, fighter, etc), race (elf, tiefling, etc., renamed species in recent publications), and alignment (lawful good, chaotic evil etc). Players are also encouraged to write a character backstory and roll dice for their strengths and weaknesses (ability scores). Equipped with their character sheet and a set of seven polyhedral dice (d4, d6, d8, d10x2, d12, d20) the player is ready to join a party (group of people) and take part in a campaign. The dice are the principal means of simulating chance and probability in D&D. For example, if a player wants to walk across an unstable looking rope bridge, the DM may get them to roll a d20 for dexterity. If the player rolls a high number like an 18, they will cross the bridge safely. However, if they player were to roll a low number such as a 2, things might not run as smoothly.

One significant influence on the use of role-playing in therapy comes from psychodrama, which was developed by Moreno in the 1920s (Borgatta et al. 1975). We can also see role-play incorporated into cognitive-behavioural therapy (CBT) (Hamamci 2006; Marriott et al. 2021; Varrette et al. 2023), which uses it as a technique to help individuals practice and develop new skills (Abeditehrani et al. 2021). RPGs, however, have been around since 1974. Fine's (1983) ethnography on RPGs, particularly D&D, shed light on how players navigate different perspectives or frames during gameplay. Fine found that D&D players operated within three different perspectives or, frames: the player as a person, gaming mechanics, and the perspective of the character. He also explored how players collectively created and maintained this shared fantasy.

There are many reported benefits of playing RPGs. For example, RPGs are reported to encourage players to communicate and resolve conflict (Kowert and Oldmeadow 2013). It has also been hypothesized that they can encourage perspective-taking (Rivers et al. 2016), and provide an opportunity for developing literacy and mathematics skills (Davis and Johns 2020). Furthermore, the interactive nature of RPGs establishes an atmosphere that can enhance social abilities and foster a sense of connection (Davis and Johns 2020). A study on the transformative potential of RPGs (Daniau 2016) highlights the potential for players to engage in collaborative creativity and personal development. Furthermore, a literature review (Lehto 2021) highlights that RPGs can positively impact overall well-being.

Coe's (2017) examination of motivations behind playing TTRPGs using Erikson's developmental psychology framework (1968), suggests that D&D is associated with the exploration of identity and the resolution of identity confusion. During this stage Erikson (1968) theorised that adolescents search for a sense of self and identity through exploration of beliefs and goals. Davis and Johns (2020) suggest that playing D&D in youth may help with overcoming the struggles within the Eriksonian stages of development. They also link D&D to the fourth stage of development (Industry vs. Inferiority). As the player establishes themselves as an important part of a successful heroic team, they can reinforce the view that they are industrious, not inferior (Davis and Johns 2020). This indicates what players may gain from playing D&D.

In examining the intersection of D&D and mental health, it is imperative to distinguish between the following: running a D&D game with the aspiration that it might have therapeutic benefits or running a game with explicit therapeutic goals. D&D is currently being utilized for therapeutic purposes worldwide. The Bodhana Group, a nonprofit, advocates the use of tabletop gaming as a directed therapeutic and clinical practice. Their sessions are specifically designed to assist players facing various challenges, such as anxiety, trauma, and impulse control. Game to Grow has developed $Critical\ Core$, a game designed for home play, aiming to inspire "intentional gaming" and therapeutic benefits. This serves as evidence of some clinical psychologists' confidence in the efficacy of this approach. Bowman and Lieberoth (2024) outline that the authors of clinical cases suggest that the positive impact of D&D on mental health stems from camaraderie and a sense of accomplishment.

Notably, specialised therapeutic DMs have the opportunity to steer the game to encourage the use of specific skills/ behaviours (Davis and Johns 2020). Qualitative research has been carried out with

five mental health practitioners who facilitate TTRPGs as a means of intervention (Gutierrez 2017). The effectiveness of the intervention, particularly with adolescents, was emphasized by participants. Participants identified the client-tailored narrative as the intervention's most advantageous feature. Ball (2022) highlights the therapeutic qualities of D&D, allowing clients to symbolize their struggles.

In one study, individuals diagnosed with social anxiety were recruited to take part in a year-long D&D campaign (Abbott et al. 2022). All participants acknowledged experiencing anxiety regarding making errors in a social context. This is an example of playing D&D and exploring how it impacted the group through a therapeutic debrief. Participants reported that playing D&D allowed them to make mistakes without debilitating anxiety. TTRPGs were utilised alongside CBT in a study by Varrette et al (2023). Here results showed an average decrease in self-reported anxiety and improved social skills. This study implements elements of CBT into the gaming experience, alongside the use of psychometrics, therefore offering a contrast from Abbott et al (2022). Additional research underscores the advantages of D&D in reducing social anxiety and fostering the development of social skills (Daniau 2016; Henrich and Worthington 2021; Sargent 2014).

A scoping review looked at the use of RPGs as a therapeutic tool (Arenas et al. 2022). Here findings suggest the potential to utilise RPGs as a complementary tool in psychotherapies, with D&D being the most cited RPG in the studies. A study regarding D&D and mental health recovery suggests that it can assist with the development of adaptive skills (Causo and Quinlan 2020). For example, players used their characters perspectives to see their own challenges from a different perspective. There has also been a recent movement towards researching live action role-playing (larping) being used in a therapeutic setting (Bartenstein 2022), where preliminary findings have shown positive outcomes, prompting suggestions for combining larping with CBT (Bartenstein 2022b). Although larping is different from D&D, both involve role-playing and improvisation.

Research regarding autistic youth indicate that RPGs are a promising medium for the development of social skills (Brown 2018; Spinelli 2018; Helbig 2019). Autistic youth who participated in TTRPG groups experienced improved ratings on a quality-of-life scale after their participation. Notably, significant improvements were observed in the areas of friendships, and emotional well-being (Katō 2019). For this population, it is possible that RPGs may offer a safe space to gain experience interacting with a complex social world (Kilmer et al. 2023). This further demonstrates that D&D has the potential to be used therapeutically for several different groups.

1.2 Research approach

The COVID-19 pandemic has significantly influenced the mental well-being of the public, giving rise to a multitude of mental health struggles (Rajkumar 2020). Interestingly, the sales for D&D tripled during this time (Baker et al. 2022). Despite the increasing use of D&D as a therapeutic intervention by a select number of psychologists and groups, there remains a scarcity of research exploring the experiences of frequent players and their mental health. This study aims to fill this gap by investigating the transformative potential of D&D for mental well-being. Through the use of semi-structured interviews and reflexive thematic analysis (TA), this research will delve into the various features of D&D that contribute to the mental health experience for its players. TA is a qualitative data analysis method that involves identifying patterns in meaning across a dataset (Braun and Clarke 2006). The insights derived from this study hold the potential to enhance our understanding of why D&D has proven successful in therapeutic settings. Furthermore, we also aim to provide a foundation for understanding how the game might be used as a tool in the future.

2. MATERIALS AND METHODS

This study aims to understand what the experience of playing D&D is like for the mental health of a frequent player, and what features scaffold this experience. Through the application of semi-structured interviews, various facets of the role-playing experience were explored. This research was approved by the University Ethics Committee.

2.1 Participants and sampling

The study required participants to be over the age of 18 and have a minimum of one year's experience frequently playing D&D. Here, "frequent" required players to have a minimum of one years' experience playing weekly/ bi-weekly. Furthermore, players must still be playing frequently. 10 participants were recruited through the D&D subreddit, and word of mouth. 6 men, 2 women, and 2 nonbinary people participated in the study and their ages ranged from early 20s to 50s. Participants were not asked if they had any mental health diagnosis. Recruitment was operated by interviewing the participants who volunteered first. Cultural influences can play a role in shaping individuals' experiences and attitudes, and the inclusion of participants from various national backgrounds enriches the depth and breadth of insights gained from this study.

2.2 Pseudonyms, gender, location, and character

- Matt, man, Ireland, Barbarian with a homebrew race
- Chris, man, Ireland, Kenku Warlock
- Derek, man, Ireland, primarily acts as DM
- Jason, man, Ireland, Tortle fighter
- Charlie, nonbinary, Ireland, Dragonborn paladin
- Nat, woman, the United States, Halfling ranger-rogue
- Andy, man, the United States, various types of Halfling
- Emily, woman, the United Kingdom, Wood elf monk
- Kameron, man, the United Kingdom, Water genasi sorcerer
- Ash, nonbinary, the United Kingdom, Dragonborn cleric

2.3 Semi-Structured Interviews

This method follows from the phenomenological position as there is a desire to enter the psychological and social world of the participant who is seen as the expert (Currie 2005). The interview schedule (Appendix I) began with general questions, how the participant discovered D&D etc. As the interview continued, probing questions were introduced. These questions explored their characters, and whether D&D has had an impact on their life. The participants who acted as DM were also asked about the experience of creating a world and running the game.

2.3.1 Thematic Analysis

TA was chosen as it is a powerful tool in the recognition of patterns of meaning across a dataset (Willig 2013). It is an accessible and theoretically flexible approach in the analysis of a qualitative dataset (Braun and Clarke 2006). The process of TA began with line-by-line coding, which later resulted in the generation of themes. Each theme captures something about the dataset that is meaningful or relevant

to the research question. Not only are the themes influenced by the research question, but also the epistemological standpoint taken by the first author. The first author adopts a realist epistemology and an idealist ontology. Therefore, themes were constructed around dimensions invoked by the participant (Willig 2013).

This study takes an inductive approach, and the data was analysed without the researchers trying to fit it into an existing coding frame. A realist stance was taken as the analysis outlines experiences, meanings, and the reality of the participant (Braun and Clarke 2006). The first author believes that through a realist stance, the analysis presents knowledge that, as truthfully as possible, reflects what is happening for the participant. An idealist ontology believes that research knowledge consists of subjective experiences obtained through observation, that is influenced by the researcher's interpretations (Giacomini 2010).

2.3.2 Procedure

Correspondence was carried out over email where each participant received an information sheet, and consent form. Interview times and dates were scheduled for when was most convenient for the participant. Three of the interviews took place face-to-face, and seven over Skype.

2.3.3 Apparatus

Each interview was recorded on a digital voice recorder device.

2.3.4 Analysis Procedure

Each transcript was analyzed in its entirety through TA which began with the transcription of each interview. Following this, line-by-line coding was carried out, followed by secondary coding and the generation of themes which, were then reviewed, defined, and labelled. Themes were generated through an in-depth analysis of patterns amongst the codes.

2.3.5 Ethics

Pre-interview, each participant was fully debriefed on the study. The information sheet presented to the participants covered their anonymity and right to withdraw. All identifiable information within the transcripts has been removed and each participant has been given a pseudonym. Participants signed a consent form which was scanned onto an encrypted laptop. The hard copies were destroyed. Audio files of the interviews were kept on the recording device and wiped post transcription. Access to these transcripts will only be had by the first author and the project supervisor and will be stored for ten years on the university server.

3. RESULTS AND DISCUSSION

Through a thematic analysis of 10 semi-structured interviews, participants outlined their experiences playing D&D. The process of playing was described as primarily a positive and rewarding experience which provided opportunities for personal development and growth. For many, this had a transformative effect and positively impacted their everyday lives. Players devoted a significant amount of their time to the game and related activities (podcasts, etc.) each week. This indicates that needs are met through the game. Players attributed their positive experiences not just to the enjoyment of the hobby but

specifically to various aspects within the game itself, including its mechanics and the environment it fosters. As outlined by Kameron:

I could go from bee to bee and get a little bit of honey, but I could also go straight to the hive and get a whole load of honey in one go, right? So, I feel like maybe I would have got the honey piece by going around doing all these activities but with D&D I feel like...I'm going straight to the hive.

This experience implies that playing D&D provides players with a greater degree of satisfaction, in a shorter timeframe, in comparison to other activities. Furthermore, other activities may require a longer time commitment to attain similar levels of satisfaction,

However, participants also acknowledged certain negative aspects, such as interpersonal conflicts with other players or challenges within the game. It was noted that while the escapist nature of D&D can offer numerous benefits, there is a potential downside if it is used as a means to neglect real-life problems.

Through the analysis, it was discovered that aspects of D&D scaffold a positive mental health experience for its players. These features were identified as five key themes, and two sub-themes:

- a) escapism;
- b) exploration of self;
- c) creative expression;
 - i. providing for others;
- d) social support;
 - i. safe space; and
- e) routine.

1.1 Escapism

A strong focus was put on escapism and the positive impact this had on players' mental health. As Matt describes, D&D is a "refuge." Jason, Nat, and Andy label D&D as an escape. This positive influence is intricately tied to the expansive possibilities within the game. As described by Nat, "Escapism. Honestly. There's nothing more amazing than being able to do the things you didn't think you could do." This suggests a desire to escape to a virtual world (Dolgobrodova 2015), where players are encouraged to explore identities beyond their own. Jason echoes this sentiment stating, "I get to sit back and relax and forget about any worries that are ongoing... nothing exists outside of the room and off that table." This aligns with the notion that the success of RPGs is linked to the escape they offer from psychological stressors in primary reality (Coe 2017).

Escapism was the primary aspect of D&D that provided Jason with a positive experience. When asked how it has impacted his life, he states:

I would honestly say, my mental health. As well as my own, other people who come to me with their problems, I would be a pillar of support for a lot of my friends. It allows me to...cause when you're living in your own head, 24 hours, seven days a week... it's a lot but, if you get to get away from that for even 4 or 5 of those, it's a big relief, it's a big breath you can take.

Jason demonstrates the pressure that is put on him in his personal life, and how escapism drew him to the game. He utilises D&D as a tool to step away from his stressors in life (Coe 2017). Jason found D&D at a time when he had lost a family member and felt pressure to keep up morale. "It drove me down a dark place... I kind of regressed into myself." The player then describes finding this escape as

a "glowing hand that pulled me out of that dark place." For this player, D&D had a profound impact of his mental health and acts as a "pillar of support" for him, as he is to his friends. This profound impact aligns with the transformative potential of D&D, offering support and healing for players (Gutierrez 2017).

Removing oneself from their everyday life is a reoccurring thread. Emily states, "You don't think about your everyday life during it." Similarly, Jason states, "I want to forget that I have work in the morning and that I have no money in my bank account." The player goes on say that the escape of playing positively impacts his mood for days after, further indicating that escapism has a transformative effect for its players. RPGs offer an escape from social constraints (Fine 1983), and provide a sense of control, particularly valued by players like Emily, who states, "I think maybe that sense of control is good for some people." Lloyd et al. (2019) suggest that this "controllability" may attract people to gaming who feel a lack of it in the real world.

However, it is essential to note potential difficulties associated with escapism. As Matt describes, "I can go home now but that's when my worries start to creep in." Whilst escapism serves a restorative function, it could also be perceived as having avoidance related functions. Although players are offered an escape whilst playing, they must return to reality once the game is done. If escapism is solely used to avoid worry and responsibility, it may contribute to ill impacts on the player's life. As discussed in past literature (Kuo et al., 2016; Chen and Chang 2019; Melodia et al. 2020; Bowditch et al. 2024), stress may be a leading factor in a need for active escapism, which is where an individual interacts with a mediated reality. However, escapism can also hinder direct addressing of negative emotions caused by stress.

3.2 Exploration of Self

The functions of RPGs encouraged players to explore their identity (Bowman 2010). Five players outlined how they utilized D&D as a form of self-exploration. Some employed role-playing as a tool for practicing skills whilst others used the game to navigate their problems. As outlined by Bowman and Hugaas (2021), "When we imagine ourselves becoming someone else, we tap into our latent potential as human beings and as a community." Similar themes were identified by Ball (2022) where "expression through play" and "working through difficulties" were superordinate themes.

Nat explored her self-confidence through the game,

When I started to look at what type of person I wanted to be, I was like, "You know, I really don't stand up for myself" and I started testing that by playing her [character] in the game as somebody who would go "actually I think we should do this instead" and it started to really show that you can do that.

The process of playing a confident character evolved over time and Nat found herself thinking, "This character would have done a lot better at this" in her day-to-day life. This became a transformative experience for her: "I've become a lot more confident in myself." The phenomenon where a player's emotions and thoughts begin to spill over between in-game and out-of-game is known as *bleed* (Montola 2010; Bowman 2013). It is suggested that bleed can assist the player in forgoing social pressures and provide a space where they can approach challenging issues (Adams 2013). Nat is using her characters confident nature to positively impact her life outside of the game. This is referred to as *bleed-out*, as a character's actions and experiences are impacting the player (Bowman and Lieberoth 2018). Confidence bleeding over more permanently into daily life can be referred to as *ego bleed* (Beltrán 2012). Beltrán (2012, 96) describes the phenomenon as pertaining "less to emotions and more to the transference of overall identity patterns during play, both in immediacy and over time." Furthermore, ego bleed refers

to the mutual exchange of personality fragments between the player and their character, creating a two-way channel. This is significant as there is a change in personality for Nat. Through the freedom of imagination, Nat can see herself as capable in ways she may previously have felt limited (Bowman 2021). It is also suggested that direct links exist between confidence and well-being (Mann et al. 2004).

Emily, when speaking about mental health, found it "easier to put it on your character and say your character is dealing with it." This links to framing (Eklund 2012), as the player feels more comfortable exploring her problems in a space that is separate from the real world. Like Nat, playing D&D has positively impacted Emily and her levels of confidence (bleed-out + ego bleed). Emily uses D&D in a transformative way known as *steering* (Montola, Stenros, and Saitta 2015; Pohjola 2015), which is when a player directs the actions and decisions of their in-game character for reasons that are external to the game world. Using her character as a transformative tool has provided Emily with a positive mental health experience. Furthermore, accepting flaws in a character could be way towards self-acceptance (Poeller et al. 2023). Past studies (Karatay and Gürarslan Baş 2017; Duchatelet et al. 2021; Chen and Syu, 2024) have also reported that role-playing is linked to an increase in self-efficacy, and self-esteem outside of game Zayas and Lewis (1986). This supports the feelings had by these players.

Jason primarily uses his experience DMing to reflect on his emotions:

If I'm feeling particularly down any day or week, I might bring in a dark, deep monster who might represent an emotion that I went through that week. This year I lost my grandfather, and I was feeling quite down about it and for a while brought a really dark entity into the campaign who annoyed and patronized and hurt the characters and they were able to fight it back and even watching them do that was like, a release for me.

Like Emily, this player is steering by placing characters in-game that represent strong emotions or events. The process of bleed-in is present here, which occurs when aspects cross over from a player to their character. Jason is steering towards a bleed-in effect to improve his own well-being and experience catharsis. Being able to engage in steering and bleed-in simultaneously is somewhat unique to the role of the DM as they have the power to guide the story. Jason's experience also draws parallels to shadow work (Beltrán 2013), where processing grief through in-game monsters serves as a form of therapeutic expression, a grief which may have otherwise been repressed. There has also been links made in the literature between RPGs and the processing of grief (Brown 2018; Causo and Quinlan 2021; Arenas et al. 2022; Ball 2022), whether this be an external grief, or an internal grief within the game itself.

As stated by Charlie, "A lot of D&D characters come from parts of people that they can't normally express," which can also link to shadow work (Beltrán 2013). Players often resolve things for themselves through a rationalization mechanism called *alibi* (Montola and Holopainen, 2012), which sets the player apart from in-game actions/events (Kessock 2013). Each player is in an understanding that the actions in the game are those of a character. Therefore, the players character can be referred to as a buffer (Gutierrez 2017), which can express things that they normally would not.

Charlie ties their characters back to their "own experience of depression and loss" and tries to "make them all into kind of redemption stories." This relates to Rosselet and Stauffer (2013) who outlined the benefits of using buffer characters. Charlie realises that they find speaking about their emotions "difficult" however, when they put these emotions into their character, they can speak freely:

I don't want to say it's a mask but it's almost like a mouthpiece that you can use to talk about your emotions that you feel...I think it's a really effective method of getting out how you feel without necessarily having to say that's how you feel...if you get me?

This links to framing (Eklund 2012) as the player utilises their character as a buffer to work through difficult emotions whilst simultaneously distancing themselves from it. This is an intrinsic part of D&D for Charlie as it has allowed them to speak openly about their mental health. There are no real-life consequences for the player as they are putting their problems on a character.

Although this has proven beneficial for this player, it is important to keep in mind that the reactions of the other players may impact on this experience. For instance, a negative response from fellow players might evoke feelings of shame. This, in turn, could discourage them from future instances of vulnerability within the gaming context. It must also be acknowledged that a player exploring difficult topics and emotions in-game can negatively impact the other players in their party. For example, if a player is processing intense emotions without the consent of others, this may be triggering.

Given the potential negative consequences associated with gaming spaces, it is crucial to incorporate check-ins. The DM plays a pivotal role in facilitating a safe environment for players to openly discuss their triggers. This proactive approach enables the group to collectively avoid potential issues and ensures that everyone feels comfortable and respected during gameplay. If D&D were to be run therapeutically, the DM can take steps to develop goals for the group or individual players. This process may begin on a one-on-one basis. Then, the party could convene for a Session 0 (a meeting that takes place before the campaign to establish the desired social environment). Useful resources would be the Consent and Safety Checklist (Reynolds and Germain 2019), and the X-Card (Stavropoulos 2013). A player holds up the X-Card to let the DM, and other players know that they are uncomfortable with the current in game topic.

Encouraging the use of such tools reinforces the commitment to maintaining a supportive gaming environment. If it is a safe and considerate environment, it can be seen as a transformational container in which we can explore and develop our self-concepts (Bowman and Hugaas 2021). Approaching the game in a trauma-informed way is crucial, particularly when simulating challenging events. When conducted with sensitivity, this may provide opportunities for players to engage in "redemption stories," fostering resilience and a deeper understanding of complex experiences (Polkinghorne et al. 2021).

This theme underscores one of the most potent tools in role-play. When engaging in role-play, we embrace a state of dual awareness (Bowman and Hugaas 2021), experiencing our characters subjectivity, and our own. The new perspective gained through a character may act as a catalyst to challenge our own self-concepts. The idea of utilizing RPGs as a way to explore one's identity is explored in depth by Bowman (2010).

1.3 Creative expression

RPGs cultivate spaces that offer clear paths to creativity (Kilmer et al. 2023). A survey report by Meriläinen (2012) highlighted that over 73% of players reported improved creativity, and 70% reported improved imagination. Our study echoes these findings as all players identified D&D as a creative outlet. Providing for others is a subtheme of this. This theme links directly to research by Chung (2013) which found that TTRPG players had higher creativity scores (e.g., divergent thinking), than non-players. Here, divergent thinking is a predictor of potential for creativity. Furthermore, research on the effectiveness of using RPGs for creativity training has demonstrated statistically significant increases in measures of creative thinking and imagination (Karwowski and Soszynski 2008).

As described by Jason, D&D offers players "explosions of creativity." Charlie adds that the game acts as an artistic expression, providing a vital outlet for their emotions. This implies that creativity serves as a protective measure to prevent emotional stagnation or overwhelm. The longstanding connection between creativity and mental health, evident in art therapy since the 1990s, is mirrored in D&D. Players wield creative agency over their characters, with Andy describing D&D as "good

mental creative time" and an avenue for his creative expression. As someone who has always engaged in writing, Kameron describes creativity as "a big part" of his "sense of self." D&D, for him, is a conduit to release creative energy. "I feel like I'm always wanting to write stories, always wanting to create things and D&D is like, I can just plug that pipe into my brain and let all the excess flow into that." Creativity and curiosity, identified as crucial human traits by Csikszentmihalyi (1997), play a pivotal role in societal progress. People also possess psychological needs, such as creativity, which, as noted by Runko (2005), tap into inner creative resources that can facilitate recovery. Reeve (2005) aligns with this perspective, suggesting that creative curiosity is intricately linked with fulfilling one's psychological needs. Participants recount how creative expression in D&D positively impacted their mental health, correlating with research linking role-playing to higher levels of originality (Karwowski and Soszynski, 2008).

For Matt, D&D offers an outlet in which he can express himself and feel release:

I think the biggest part of D&D for me has been that creative aspect of it and just like, just to emphasise that is the biggest effect that it has had on me and the biggest thing I associated with it when I'm thinking about positive effects that it's had on me.

This association suggests that the creative process has become a defining feature of their engagement with the game. Research indicates that participation in RPGs can improve a player's creative potential (Dyson et al. 2016), and such is demonstrated here. By actively participating in the creative process of world-building and character development, players not only exercise their creative potential, but also experience a deep sense of immersion.

Similar to Matt, D&D came at a time for Chris when he was struggling with his own motivation. This player describes the "massive impact" on his mental health. In previous years the player had been on a "downward path" and pinpoints the creative freedom in D&D as being the major catalyst for change in his mental health:

It's definitely brightened up my life in huge ways and again, it's kickstarted my own creativity again and my own motivation to do things because I did struggle with motivation to do anything for a while, but it's definitely been a hugely positive impact... I've been happier since I started playing.

This conveys a profound positive transformation which can be attributed to D&D. Beyond the enjoyment of the game itself, the creative stimulation, and motivation provided had a meaningful and lasting impact.

Motivation, defined by Reeve (2005), is a process giving behaviour its energy and direction. Past research (Yee 2006; Bowman 2010; Burenkova et al. 2015) demonstrates that creativity is a significant motivator in role-playing. As demonstrated above, D&D players are motivated to fulfil their psychological need to be creative.

3.3.1 Providing for others

A successful DM is dedicated to the enjoyment and satisfaction of their players (Cogburn and Silcox 2012). For example, Nat enjoys "watching people discover aspects" of her stories. This aligns with research indicating that expressive writing and creativity contribute to positive mental health experiences (Stuckey and Nobel 2010).

For Derek, the ability to evoke positive emotions from players becomes a lasting source of enjoyment, positively impacting his mood over the next few days. This highlights how D&D can serve as an ongoing source of satisfaction. For Jason, he gets to:

watch them laughing and to watch them get emotional when the characters are about to face turmoil, watching them rattling their brains at decisions when I know the answer, it's very humbling and there's a great sense of satisfaction out of it.

His use of the term "humble" reflects a deep appreciation for the impact he has on players' experiences. These perspectives highlight the diverse ways players can find fulfilment.

Similarly, Chris benefits from sharing his creative expression and provides others with a positive experience:

...that's what I love as a DM is, knowing that I'm not boring everyone, that everyone's having a good time and are engaged and that they are enjoying the story that I'm trying to tell with them because, it's all, for me, it's all about them more than it's about me telling my story and it being my game, it's their game that I just happen to be creating the framework for...

There is a sense of accomplishment and satisfaction here as the players are engaged in and enjoying something that the DM created. It is also likely that the DM receives verbal gratitude from their players, adding to their satisfaction. This collaborative aspect is supported by research which acknowledges that TTRPGs effectively foster collaborative creativity (Daniau 2016). The DM, acting as a guide and facilitator, plays a crucial role in orchestrating this collective creative experience, ultimately contributing to the positive mental well-being of all participants.

3.4 Social support

D&D provides players with a community and encourages the formation and maintenance of friendships (Wilson 2007). In our study, playing D&D provided all players with social support. For some, this extended to D&D being a safe space. Meriläinen (2012) highlighted that 70% of players saw themselves as a part of a community or subculture. 87% formed significant relationships through it. Sias and Bartoo (2007) report the connection between social support and mental health, suggesting that strong friendships promote a positive impact on physical, and environmental stressors. In the United States, social connectedness is decreasing, and loneliness is increasing, indicating that people may not have access to the social support that they need (Abbott et al. 2022)

Players in our study articulate the rapid development of strong bonds with other players. For Andy, many of his D&D friendships have "extended beyond gaming." Humans are social beings and human connection/ interaction impacts on levels of happiness (Diener and Seligman 2002). Chris describes these friendships as "long lasting" as D&D "breaks down the barriers... because you don't have to be yourself straight away." This element of friendships built though D&D is unique. This is supported by research which indicates that role-playing can help players with their social skills (Blatner 2000). Adams (2013) suggests that D&D allows players to build friendships that transfer over to their everyday life. Friendships cultivated through D&D offer a distinctive blend of creative collaboration and shared interests, providing support both in and outside the game.

For Derek, D&D is a connection to a "core group of people." It is his only "social" hobby and has changed the ways in which he communicates with others. This links to research that explores virtual spaces (Wimmer 2014). These spaces can simulate real-life social situations in which players

can practise their skills. Matt, who describes himself as an introvert, acknowledges that if it were not for D&D, his social engagement would be limited, which would be to his "detriment."

Nat describes her D&D party as friends for life, highlighting the emotional support they provide during her struggles with mental health. "These are the people that... when I felt like I'm at my worst, suddenly come out of nowhere and go, 'Hey, I was worried about you." This emphasizes the strong social connections that this player has developed. D&D is a collaborative engagement and through this, players can experience group flow whilst feeling connected to each other (Bryan-Kinns and Hamilton 2009). Those who feel supported by their friends tend to live longer and healthier lives, with a more positive outlook when faced with adversity (Taylor et al. 2000).

Emily and Kameron share experiences of loneliness before playing. Emily had just moved to a new city and champions the "collaborative" nature of D&D as something that made her feel less alone. Research on moving to a new place (Hendricks, Ludwigs, and Veenhoven 2014) highlights the negative impact that this can have on someone in their 20s:

It really is, like, my mental health has just... like I said, I was really depressed and anxious before and I just...you know. It's really helped, and I think it is that seeing people.

Emily links her depression and anxiety to her loneliness. For Emily, building friendships and finding social support through D&D has improved her mental health and well-being.

Similarly, Kameron discusses his struggles with loneliness. In his 40s, Kameron states that "sometimes as a parent it can be really difficult to socialise outside of the things your kids are doing." Research has found that the suicide rate among middle-aged men is the highest of all age cohorts, with loneliness being a primary cause of distress (O'Donnell and Richardson 2018). This research also highlights the importance of social outlets for one's mental health. Kameron discusses what friendships are like for a middle-aged man and states, "Even friends who are having rough times, they disappear." It has been indicted that this behaviour stems from societal pressures on men to be strong and independent (Oliffe et al. 2018). Kameron believe that these "strong bonds" are forged because players engage in more "intense" moments through D&D than they would in other hobbies. The exploration of challenging topics, such as death, within the game leads to shared intense emotions, fostering robust social connections and contributing to positive mental health experiences (Montola 2010). In turn, this provides the players with strong social connections, scaffolding a positive mental health experience.

3.4.1 Safe space

The term "safe space" here follows Advocates for Youth (2012) who define safe space as a welcoming environment where individuals can freely express themselves without fear of discomfort or discrimination. The close connections made through D&D nurtured a safe space in which players could open-up to each other. A poignant example is Ash, who used D&D as a platform to come out as nonbinary:

I made my character nonbinary, and they were all obviously completely fine with it and they were asking my character about it and then out of character I told them, "This is all very real by the way" and then carried on talking in-character.

There is a link here to *alibi* (Montola and Holopainen, 2012), as the player is resolving something for themselves in game. Alibi allows the player to create a safe emotional distance from the character, which can allow for greater experimentation (Ball 2022). Furthermore, engaging with this mechanism can deflect negative inference (Deterding 2018), and act as a protective factor. The positive reactions from other players contributed to a positive mental health experience for Ash.

As stated by Kameron, "I guess it's also a safe space, right? We can explore these themes and bad things but aren't really happening, they're just happening in our imaginations." This resonates with Eklund (2012), who discusses how gaming liberates players from judgment and societal constraints. The creation of a safe space through D&D has also been acknowledged by Causo and Quinlan (2020), where participants viewed D&D as a "respite." As demonstrated, D&D provides players with a safe social space which scaffolds a positive experience for its players.

3.5 Routine

Familiarity is one of D&D's most therapeutic qualities (Mendoza 2020). For many groups, D&D sessions adhere to a consistent schedule, occurring on the same day and time each week. Participants highlighted this routine as a source of comfort. For Derek, "It becomes part of the routine, it's built into something that I can expect, something that is... it's that idea of, on a boring day, it's a highlight, on a stressful day it's kind of a respite." The consistency here provides stability and solitude. Jason emphasizes the importance of routine: "It doesn't matter if I'm having the worst week in the world because there is a D&D campaign at the end of it." Therefore, the anticipation of engaging in the campaign serves as a motivating factor and a positive anchor, irrespective of the challenges he may be facing. Past research has shown that anticipating something can be a positive and powerful emotion (Luo et al. 2018; Monfort et al. 2015). Specifically, looking forward to something has a more positive impact on one's mental health than looking back on it (Van Boven and Ashworth 2007). This highlights the positive mental health benefits of scheduling something fun.

As discussed in theme four, Emily has struggled with depression and anxiety due to loneliness. When asked if the positive change in her mental health was quick or gradual, she states:

...in the evenings, I wouldn't feel that sort of "ok go to bed because I've got nothing else to do" it was kind of like "oh I've got a day off today and tomorrow I'm going to play and I'm going to see my friends" and just knowing that you actually... I think when I was very lonely in X... just knowing I actually had a group of people who I met regularly and that even though I wasn't seeing anyone that night, it's okay because in two days' time I'm going to see my friends.

This demonstrates how important routine, as well as social support, is for her mental health. The knowledge of upcoming social interactions serves as a protective factor or buffer against loneliness. This aligns with research indicating a positive relationship between routine and the meaning of life (Heintzelman and King 2018), suggesting that having a routine can contribute to improved mental health.

Atanasio (2020) also explores the positive effects of routine and frequent RPG sessions, particularly in older adults struggling with isolation. The scheduled D&D sessions provided a regular source of anticipation, prompting increased participant-initiated contact and interaction. This further underscores the therapeutic power of routine in the context of RPGs.

4. GENERAL DISCUSSION

The aim of this study was to explore the impact of playing D&D on the mental health of frequent players, and what features promote this experience. We identified five themes and two subthemes that scaffolded a positive mental health experience for players:

- a) escapism;
- b) exploration of self;
- c) creative expression;
 - i. providing for others;
- d) social support;
 - i. safe space; and
- e) routine.

The themes which arose indicated many transformative features of D&D. A strong focus was placed on *escapism* and the positive impact that this had on the mental health of the players. Players reported feeling a sense of control in-game during times when they did not have control outside of it. Therapeutically this is an attractive feature of D&D. The theme *exploration of self* indicates that D&D has the potential to be utilized in a therapeutic setting, as players felt more comfortable exploring problems/ practicing skills in a space that was sperate from the real-world. Players also reported benefits in their everyday lives which demonstrates a potential transference of skills. In terms of *creative expression* and *providing for others*, participants responded positively to being given creative agency. Furthermore, players are motivated to fulfil their psychological need to be creative through playing. In a therapeutic setting this would allow an individual to create any type of character or scenario that they please. Therapeutically, the *social support* and *safe space* provided by D&D may provide players with emotional and social support from a core group of people and offer them a space in which they can express themselves. Lastly, *routine* and the potential for the sessions to occur weekly can provide stability. This demonstrates how playing D&D may lead to feelings of autonomy and personal growth.

It is imperative to also examine whether our identified themes are inherently linked to the nature of D&D or if they could be attributed to any hobby or leisure pursuit. Regarding escapism, this characteristic is directly associated with the immersive and imaginative nature of D&D gameplay. Although other hobbies may offer escapism, such may be of a more isolating nature. While the theme exploration of self could be generalized to any leisure activity that provides a safe space for introspection, D&D uniquely encourages players to confront aspects of their identity in a controlled environment. Whilst many hobbies may allow for creative expression, D&D uniquely allows players to collaboratively build and inhabit worlds of their creation. While social support or a safe space is a recognized benefit of many group activities, the collaborative storytelling aspect of D&D fosters a unique sense of camaraderic and shared experience among players. Routine on the other hand, is a characteristic which may be common to most hobbies. Therefore, it is essential to recognize that while some themes may overlap with other leisure activities, D&D uniquely encompasses all these elements, offering a comprehensive and immersive experience that contributes to its distinctive therapeutic potential.

As demonstrated, D&D can be a transformative experience, bringing a myriad of benefits. There are currently many groups that are already using RPGs therapeutically. Therefore, the potential of D&D is already being realized. However, these more prominent groups primarily exist in the United States. Therefore, there is a need to create more of these groups in locations across the globe. There is potential for these groups to assist with skills development, emotional exploration, and problem solving. If run therapeutically, the campaign could support a structured and supportive therapeutic experience. This may would include therapeutic goals, a safe environment, and a collaborative narrative.

The study also hoped to identify factors which may prove challenging or problematic for the therapeutic context. For instance, while escapism can have recuperative functions, it may also serve as a form of avoidance. Furthermore, players may bring sensitive topics into the game, potentially causing discomfort or triggering negative reactions in others. To mitigate these risks, a therapeutic DM should carefully curate storyline content, and foster a supportive and inclusive environment. Additionally,

players should have the option to withdraw from the game if needed. Some players placed their reallife problems onto their character as a means of exploring them. Although this proved beneficial for participants of this study, it is possible that the potential negative reactions of other players may be harmful.

It is important to recognize that while D&D can offer therapeutic benefits, it should not replace other forms of support. Instead, it should be viewed as a complementary aspect of a holistic approach to mental health, which may include individual therapy, social support networks, and access to appropriate resources. This perspective is supported by existing research on the therapeutic use of D&D (Henrich and Worthington 2021).

In conclusion, our study highlights the positive impact of D&D on mental health and emphasizes its potential as a therapeutic tool. However, further research is needed to explore its effectiveness across diverse populations and settings. Additionally, efforts to promote inclusivity and diversity within the gaming community are crucial for maximizing the therapeutic benefits of D&D for all players.

5. LIMITATIONS

The results and analysis of this research is limited to the context within which it was conducted. Although the players came from three countries and ranged in age from their twenties to fifties, it can be assumed that all players who volunteered to speak about D&D were passionate about it. Therefore, those who were interviewed were more likely to have had a positive experience playing, which may not be representative of every player. We noticed that more volunteers were men. This raises a question about the culture around D&D, and inclusivity in the wider gaming community.

6. DECLARATION OF INTEREST

The authors declare that there was no funding received for this work. Both authors confirm that there are no financial or non-financial competing interests to report.

7. REFLEXIVITY

I, the first author, have been submerged in the world of tabletop board gaming for several years. I have been playing D&D for five. As a member of this community, I am aware of how playing has impacted on my own mental health. Being self-aware of this fact, and how it may influence my analysis of the dataset, is crucial. Furthermore, remaining self-aware is integral to minimising this impact whilst also recognising that one cannot simply detach. This was achieved through writing a reflective journal. As an autistic person, I analysed the data through a neurodivergent perspective. The second author and project supervisor has worked on diverse research projects, including the design of educational games. His expertise lies in designing and evaluating technology that supports behaviour change.

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APPENDIX I

Baseline questions:

- How are you/ how has your day been?
- Thanks so much for taking part in my study. What interested you in reaching out to me?
- Do you prefer keeping our cameras on or off?

Questions:

- When did you first discover RPGs? / How long have you been playing?
- What was your first experience of playing like?
- What type of character do you play and what was your inspiration for your them?
- How are you similar/ dissimilar character?
- How do you feel before/after playing D&D?
- How do you feel when you take on the role of your character? What's that process like?
- What relationship do you have with the people you play with?
- Have you created any relationships from playing?
- Has it benefitted you/ hindered you?
- In what ways has D&D impacted on your life?
- Would you encourage others to try it and why?
- Do you have a moment in-game that highlights why you like playing?

Added questions for the DMs:

- Do you prefer playing or DMing?
- As a DM, what's it running the experience for the players?
- Is there a sense of responsibility with being a DM?
- Does what is going on in your everyday life ever impact what's going on in the story you create?
- Have you had any standout moments as a DM that highlight why you enjoy sitting at this side of the screen?

Orla Walsh is a 3rd year Ph.D. student and tutor in Applied Psychology at University College Cork, Ireland. Her research focuses on using Dungeons & Dragons as a tool for skills training, aiming to understand both RPG features conducive to skill development and the creation of tailored interventions. Orla has a diverse academic background spanning from Women's Studies to Early Years Education. As an autistic researcher, she prioritizes inclusive research methodologies, ensuring active participation from the community.

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