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Tabletop Roleplaying Games, and Depression, and Social Anxiety

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TABLETOP ROLEPLAYING GAMES, AND DEPRESSION, AND SOCIAL

ANXIETY

by

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ABSTRACT

Tabletop roleplaying games are a form of in-person, multiplayer games structured around group interaction, set rules of gameplay, strategic group decision-making, and active character roleplaying. While such games have existed in some form for thousands of years, more recent and modern versions such as *Dungeons & Dragons* and *Call of Cthulhu* have increased attention not only to their use as a form of entertainment, but as a potential extension of play and drama therapies in a clinical setting (Henrich & Worthington, 2021). Research into therapeutic roleplaying, both with and without gameplay supervision, has shown a promising association with increased understanding of self-concept and connection to community (House, 1970; Winn, 1959) as well as a reduction in depression and anxiety (Burroughs, Wagner & Johnson, 1997; Wilde, 1994). However, historical investigations have primarily concentrated on younger age groups, where play and drama therapies are most frequently employed with a focus on individual development and social connections. Recent studies have only just begun to investigate tabletop roleplaying games as a form of therapy; most have involved case-studies that apply theoretical and anecdotal, rather than clinical, evidence of the game's effective use as a mechanism of therapeutic treatment (Blackmon, 1994; Hughes, 1988). The current study aimed to extend tabletop roleplaying games research to a larger, more varied age group (*N* = 184, *Average age* = 19.2) through an online survey. We assessed participants' experience with the game and reasons to participate in gameplay, and examined any correlations between levels of depression, anxiety, and amount of participation in tabletop roleplaying games. Results indicated that participants generally felt that tabletop roleplaying games supported their mental health and well-being,

particularly in the context of roleplaying in their character's mindset. We also found that frequency of play was negatively associated with symptoms of depression and anxiety, even when controlling for predictors on the Ten Item Personality Measure such as conscientiousness and emotional stability (Gosling et al., 2003). This may suggest that individuals experiencing depression or social anxiety turn to tabletop roleplaying games as a method to respond and cope with these symptoms. The implications of these results, as well as directions for further research in this burgeoning field are discussed.

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INTRODUCTION

<u>What is a Tabletop Roleplaying Game?</u>

Roleplaying has been a form of community interaction and entertainment for thousands of years, adopted and adapted by countless cultures in diverse forms including plays, TV shows, movies, video games, and in-person and online roleplaying games. Roleplaying is simply when someone, "acts out or performs the part of a person or character, for example as a technique in training or psychotherapy" or as a part of, "participation in a role-playing game" (Merriam-Webster, 2022).

However, roleplaying is not limited to on-stage, on-screen performances, or therapeutic use but is often a part of play in daily life. Even before the implementation of popular online roleplaying games such as World of Warcraft and Guild Wars in the 2000s, the genre garnered public attention in the early 1970s in the form of an in-person "paper and pencil" tabletop roleplaying game called Dungeons & Dragons (Michaud, 2015). After its publication by creators Gary Gygax and Dave Arneson in 1974 (Carroll & Winter, 2009), Dungeons & Dragons is credited to be the first modern form of tabletop roleplaying games (TTRPGs).

TTRPGs like Dungeons & Dragons (D&D) are collaborative roleplaying and storytelling games. The activity is structured around the combined efforts of the players (typically 3-5) and the Game Master: the play-leader who designs the game's world, creates quests and story-beats for the players, and oversees gameplay through the game's rules and mechanics. Together, the players and the Game Master (often shortened to "GM") design and act out actions through roleplaying and determine the success of their imagined actions through dice-based gameplay.

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During a session of D&D, for example, the GM describes a scene and players react in-character to the on-going events, explaining what their characters would do through roleplaying. The GM then describes how the world and the non-player characters within the scene would react, building an imagined story together. Depending on the players' choices and actions, the session might be focused on imagining interpersonal interactions and social issues or, if an in-game conflict ensues, might be more rules-based, incorporating dice-rolling and strategic simulated combat. Tabletop roleplaying games such as Dungeons & Dragons balance gameplay between these two elements, frequently encouraging players to interact with other group members through in-character conversation and in battle scenarios. Success in the players' goals often depends upon their cooperation, communication, and strategic collaboration in the imagined world created by the Game Master. Through roleplaying and combat, the gameplay system supports the creation of personal connection between all participants and presents an environment that can be tailored to meet the needs and enjoyment of all members.

<u>From Table to Screen: The World's Modern View of TTRPGs</u>

Despite the 'satanic panic' of the 1980s', regarding some religious figures' view that tabletop roleplaying games fostered demon worship, witchcraft, and violence (Haberman, 2016) the popularity of TTRPGs have rapidly increased in the last decade. Today, close to 15 million people play across the United States alone, with an estimated 50 million around the globe utilizing the game as a means of social interaction and enjoyment (Brodeur, 2018; Tanen, 2021). TTRPG companies such as *Wizards of the Coast* have experienced unprecedented interest, attesting to people's desire to connect more fully during the period of physical isolation in the COVID-19 pandemic. The

company's sales rose by nearly 25% in 2020 during the height of the pandemic's quarantine as every form of interaction turned online (Whitten, 2021). This included a surge of computer-based gameplay, from Minecraft and Fortnite to virtual programs designed specifically for roleplaying games, such as Roll20 and Fantasy Ground (Ibrahimi, 2020; Lazarus, 2020). Along with many other forms of virtual gameplay, roleplaying games have moved increasingly from the tabletop to the laptop as a direct result of the world's transition onto online platforms during the pandemic, with many playing online through video conferencing apps or even watching live streams of TTRPG games online. For example, the popular Dungeons & Dragons podcast *Critical Role* saw a record increase in viewership between January and June of 2020 - over 2 million individuals watched the company's weekly livestream during the height of the United States' quarantine and currently holds the status as Twitch's highest earner (Critical Role - Statistics; Kipling, 2021).

The increasing audience size of tabletop roleplaying games in the last decade to a primarily new community presents both a turning point in the global perception of interactive roleplaying and is indicative of its potential connection to mental health disorders. As public attention towards mental health in relation to quarantining has increased, TTRPGs may represent a safe and effective mode of interpersonal connection. Although tabletop roleplaying games have only recently been explored as potential platforms for developing social and psychological well-being, they provide a structure of connection and support that is unrivaled by other contemporary forms of entertainment, including online video games and social media use (Allison, 2021) and thus may have significant benefits.

<u>The Rising Risk of Mental Health Today</u>

The growing popularity of tabletop roleplaying games is occurring alongside an increase in reports of mental health risks, including depression and anxiety (Mental Health America, 2022). The World Health Organization reported in 2016 that depression is predicted to dethrone ischemic heart disease as the leading cause of disease burden, or the total financial, physical, and emotional cost of a disease, by 2030 (Marcus et al, 2012). Clinical analysis of 1,000 U.S. citizens by the American Psychiatric Association from 2016 to 2017, and 2017 to 2018 found a 5% increase in the diagnosis of social anxiety; the clinical diagnosis of anxiety and depression is often comorbid, or rather, patients diagnosed with either mental disorder are more likely to be subsequently diagnosed with the second disorder (American Psychiatric Association, 2017; Ratnani et al, 2017).

Additional factors in the last several decades have pushed such mental health difficulties further into the spotlight, most notably the association between the parallel rise of popularity towards social media platforms and the percentage of the world population facing mental health disorders (Meshi & Ellithorpe, 2021). Research has indicated that individuals ages 19-23 who were previously diagnosed with depression are significantly more likely to increase daily social media use (Lin et al., 2016). Social media platforms themselves has been found to exacerbate feelings of loneliness and depression, including a significant correlation between increased social media use and feelings of depression, isolation, and 'fear of missing out' (Hunt et al., 2018). Since the rise of social media outlets in the early 2000s and beyond (McIntosh, 2003), numerous

studies have investigated the escalation of feelings of isolation and loneliness as individuals turn online to seek social interaction through screen time.

The rise of the COVID-19 pandemic, along with already existing data noting the increased tendency to self-isolate in virtual spaces (Primack et al., 2017), suggests a significant exacerbation of depression and anxiety disorders in the last decade. The heightened risk of such mental disorders throughout the initial stages of quarantine were estimated globally to cause a 27% and 25% increase in depression and anxiety, leading to 53.2 million and 76.2 million additional cases of both disorders, respectively (COVID-19 Mental Disorders Collaborators, 2021). With little to no access to the necessity of in-person interaction, online contact in the midst of lock-down became a lifeline - calls for access to mental health resources during the pandemic were met with online alternatives that still remain (Batastini et al., 2021). With clinical evidence of increased social isolation and subsequent spikes in depression and loneliness in the past three-years (Twenge et al., 2019), the need for richer forms of socialization, such as face-to-face interaction rather than social media platforms, is apparent.

Numerous longitudinal studies support the necessity of social contact as a preventative measure against depression and isolation even prior to the loneliness of the COVID-19 pandemic (Green et al., 2021; Lee et al., 2020; Teo et al., 2015). For example, a longitudinal study by Seligman et al. (1999) found a significant reduction in symptoms of depression and anxiety for those participating in an 8-week group workshop, relative to those who did not participate. In follow-up work over the course of a three-year period, participants who had attended the workshop showed significantly fewer symptoms of depression and anxiety, as well as reduced feelings of hopelessness,

"dysfunctional attitudes", and the style in which they expressed themselves (Seligman et al., 1999). These effects are attributed primarily to conversation and interaction in the group workshop, suggesting that social connection presented a significant mediating role in participants at risk for the development of anxiety and depression.

Furthermore, research in the last two decades has continued to emphasize social interaction as an effective form of treatment in patients with depressive symptoms (Mavandadi et al., 2022). When analyzing 868 veterans' risk of mental health disorders, social connection to others was the single significant factor correlated with changes in depressive symptoms over the course of the patients' treatment (Mavandadi et al., 2022). Results from a study by Williams and Galliher (2006) on the interaction between social connection, support, and depression found that social *connectedness,* rather than *support,* significantly impacted symptoms of depression and affected not only participants' relationship with others, but their levels of self-perception and esteem as well. The structure of these studies highlights the effectiveness of group interaction through shared experience (Mavandadi et al., 2022), emotional connection (Seligman et al., 1999; Williams & Galliher, 2006), and the creation of new, positive memories in a secure environment (Seligman et al., 1999). However, the presence of these three factors extends past mental health studies and treatments. The development of shared experience, common interests, and emotional and social connectivity exist in TTRPGs. Unlike sother social leisure, these games provide a set method to emphasize the connection between players; the results of decisions made by individual participants impact everyone who engages in the game, and therefore depends on the collaborative effort of all involved to rectify conflict or seek solutions.

Due to the integrated use of roleplaying, group interaction, and emphasis on the relationship between in-game characters and players at the table, researchers and the public alike have begun to note the potential linkage in which TTRPGs may positively affect mental health disorders. Research decades in the making have examined the benefits of roleplaying through forms of acting or play therapy in both children and adults. Thus, the basis of TTRPGs as an activity structured around strong, interpersonal relationships created through the gameplay, and the need for these same kinds of interactions as an effective form of countenance against mental health disorders like depression and anxiety suggest that tabletop roleplaying games may represent a new form of therapeutic treatment.

<div align="center">Exiting the Table: Roleplaying in Therapy</div>

The recent expansion in the international use of roleplaying games has turned attention towards its potential use in the treatment of mental disorders, such as depression, social anxiety, schizophrenia, and post-traumatic stress disorder. Research on role-playing games' potential has examined their use in increasing self-esteem and social skills, reducing stress, and supporting the development of anxiety management (Bratton & Ray, 2000). The use of roleplay in therapy is consistent with the broader effectiveness of "play" therapies. Bratton and Ray's metanalysis of 94 studies assessing the effectiveness of play therapy over an 80-year span reflects its potential as a therapeutic resource for children and young adults. They reported play therapy's interaction with a variety of emotional and social difficulties, including 12 of 14 studies finding its benefits to social maladjustment, 4 studies improving personality adjustment, and 8 of 9 studies demonstrating a significant improvement in self-concept (Bratton & Ray, 2000).

Research by House (1970) further suggests that rule structure and free play in combination can aid in establishing personal development. His work examined 'non-directive group play,' a form of play therapy without the direct involvement of a therapist, in 36 second grade students over a period of ten weeks. The study found a statistically significant increase in positive self-perception in the non-directive play group relative to the control group, who participated in directed reading group interaction. House's findings suggest that the kind of free form play of TTRPGs could be used as an effective tool in the development of young students' understanding of self-concept. These results are consistent with older research, such as Winn's (1959) study of non-directive play therapy with 26 students, ages 7 to 10. Though no significant difference was indicated in reading scores, which the study was initially created to investigate, Winn found significantly greater differences between the experimental and control groups in individuals' self-perception of personality. Both Winn and House's studies suggest a significant association between collaborative, non-directive play, like roleplaying, and the development of protective interpersonal relationships and positive understanding of the self.

Other research has extended the investigation of play therapy to its applications in treating depression and anxiety more directly. Burroughs, Wagner, and Johnson (1997) found that a coping skills training-based board game significantly reduced depression scores for children ages 7-17 who faced parental divorce, relative to those who participated in basic play therapy. Wilde (1994)'s research reflected similar results following the analysis of a seven-week trial on high school students, grades 9-12, on the use of the board game 'Let's Get Rational'. In the 9th grade group, the board game was

effective at reducing scores on the Beck Depression Inventory and in the 10th grade group, at reducing irrational thinking. Both studies' results reflect the potential of tabletop roleplaying games as an extension of play therapy in treating a number of difficult life events and mental health disorders.

Studies by Burroughs, Wagner, and Johnson (1997) and Wilde (1994) share the use of structure-based games that allow players to apply their own perspectives to gameplay. While tabletop roleplaying games allow more freedom to players through imaginative world-building, all genres of TTRPGs still follow specific sets of guidelines and rules that create the basis of every game. The combination of nondirective group play (House, 1970; Winn 1959) and rule-based gameplay (Burroughs et al., 1977; Wilde 1994) demonstrate the dual dynamics of tabletop roleplaying games as a genre that provides both set structure and in-person instruction by a Game Master (who is a peer rather than a figure of authority), as well as verbally and physically interactive, open-world based gameplay. Therefore, it is plausible that TTRPGs could be applied to the therapeutic treatment of mental health disorders, community building, and positive self-perception in similar contexts to that of play therapy.

Thus far, longitudinal clinical trials have focused heavily on individual case studies on the utilization of tabletop roleplaying games as a form of individual or group therapy. However, the global transition towards TTRPGs as a source of community interaction, and as a reaction to increased rates of isolation, depression, and anxiety throughout the COVID-19 pandemic, have suggested its potential as a formal therapeutic modality. Research by Scriven (2021) found that the majority of players in a TTRPG felt either that it provided a temporary online forum for social interaction or that virtual play

was considered more convenient and 'streamlined' (Scriven, 2020; p. 12). Even prior to the 2020 outbreak of COVID-19, in-person tabletop roleplaying games began to be explored as an alternative technique to treating mental health disorders such as ADHD, social anxiety, depression, and PTSD. Companies such as Game to Grow, a non-profit organization, now provide tabletop roleplaying game-based programs that not only to aid in the development of perspective taking, community collaboration, and self-regulation, but include APA sponsored certification training for educators and mental health practitioners as well (The Game to Grow Method, 2021).

Recent studies on the potential of roleplaying have extended to its interaction with physiological components of the brain. Bowman and Liberoth (2018) exemplify this expansion through an investigation of the neurological influence of roleplaying on an individual's feeling of connection to others. Through brain imaging techniques, they discovered a significant overlap between the sections of the brain responding to social interaction and the perception of fictional narratives. The results are applied in reference to mirroring, or the activation of neurons that results in a subconscious mental or physical reaction to others, suggesting that roleplaying not only increases players' empathy towards other participants in a roleplaying setting, but may also influence them to apply another player's perspective in and outside of the game (Bowman & Liberoth, 2018; Henrich & Worthington 2021).

<u>Rolling Initiative: Studies on TTRPGs and Mental Health</u>

Much of the available research on the potential of TTRPGs in past decades has been focused on specific cases. For example, a case study by Blackmon (1994) demonstrates one of the first applications of Dungeons & Dragons in treating mental

health disorders in a clinical therapeutic setting. Over the course of several years 'Fred', a college student diagnosed with schizoid personality disorder and depression, utilized Dungeons & Dragons as a method, "to experience the full range of feelings from hate to love" (Blackmon 1994, p. 626). Blackmon himself supported the game's inclusion in therapy as a form of, "[the] questioning of motives and emotions [that allow] (...) underlying unconscious thoughts to come to awareness and be worked through", emotions that were then accessible in therapy through participation in D&D (p. 629). He concluded that this TTRPG created a space for 'Fred' to connect with negative personal experiences and self-perception in a guided environment which led to the eventual development of healthier social and emotional coping skills (Blackmon, 1994, p. 631).

It should be noted that current studies have found mixed results in the potential for TTRPGs' positive association with decreased symptoms of mental health disorders such as depression and social anxiety. Research by Taylor (2018) investigated the association between participation in a TTRPG and its potential for the development of emotional resilience and resistance to emotional distress. The study looked into participants' experience with depression, anxiety, social isolation, and addictive behavior, as well as past and current TTRPG play. Taylor's online survey included 1,012 participants; 62.1% male, 37.6% female, and 0.3% non-binary (p. 23). Interestingly, the data showed that a negative association between 'TRPG Effect to Distress' and 'Current Distress', particularly in its potential association with age and gender (p. 35). However, when correlating age and gender with Distress and controlling for TRPG Effect he found that the two former factors more significantly contributed to distress than the effects of

TTRPG play (p. 39). Taylor concluded that the investigation of TTRPGs' association with emotional distress found a negative correlation, unlike his proposed hypothesis.

In contrast to Taylor's (2018) findings, several studies on tabletop roleplaying games have been shown to increase the processing of negative emotions (Meriläinen 2012) and social and emotional development (Kato, 2019), demonstrating the potential for individual growth through roleplaying. Meriläinen reported findings from an online survey of 161 experienced role-players and 106 non-role-players regarding emotional processing through TTRPGs. Results found that 49% of survey participants involved in TTRPGs used the game to examine their emotional experiences, with the majority reporting that the activity created a safe environment to explore negative emotions. 46% of participants also reported feeling that it established a method of processing these experiences outside of gameplay. A strong positive correlation indicated that participants who felt that the game provided a safe environment also felt strongly that it aided in processing those emotions.

Two studies by Kato (2019) further investigated the relationship between tabletop roleplaying games and emotion and social development with a small group of young teenagers on the autism spectrum. The first involved four children ages 13 and 14 who participated in a TTRPG game over the course of 16 sessions, with audio recordings from the first and and fourteenth session processed as either, "intentional speech directed at other children" or "speech not directed at other children" (Kato, 2019; p. 1). Kato found a 15.7% increase in communicative interaction between players, from 36.7% of conversational engagement in the first session to 52.4% in the 14th. The interaction of players between these two time points also developed from majority-made decisions

during gameplay to discussion-based decision making between the four participants. The researcher noted this "consensus-making" quintupled during gameplay from zero interactions during the first session to five in 14th session (Kato, 2019; p. 1).

Kato's second study investigated TTRPG play as a method to strengthen the quality of life in children on the spectrum. Fifty-one young adults (*Average age* = 14; 41 male, 10 female) participated in five sessions of the game and completed the Kid-KINDL Questionnaire before and after gameplay. The results found a notable increase in scores between the beginning and end of the study, particularly in the development of emotional well-being and self-esteem. Kato concluded that the results indicate TTRPG's potential to establish friendship and encourage communication between participants, rather than the one-way discussions viewed in session one of the first study.

Kato's research emphasizes the potential for TTRPGs application towards social anxiety and engagement in a group with shared personal experience. This is reflected in a study by Kerr (2021) on the topic of TTRPG participation to decrease symptoms of social anxiety in the LGBTQ+ community. 114 (42% female, 36% male, 16% non-binary, 3% Other, 2% prefer not to say) individuals completed an online survey regarding their frequency of play with and without members of the community, as well as their symptoms of social anxiety on the Social Interaction Anxiety Scale. Kerr found that while TTRPG play was not associated with a reduction in symptoms of anxiety after play in any setting, there was a significant association between the members of the individual's play group. Participants who played with other members of the LGBTQ+ community were found to have a significantly lower scores of anxiety when playing often as opposed to those who rarely participated with other members of the community. Kerr's

research shares similarities to Kato's (2019) second study in that both investigations investigated the use of TTRPGs to reduce mental health difficulties and disorders in a group with shared experience. These studies' results emphasize that the social connection between players in tabletop roleplaying games do influence participants' symptoms of mental health difficulties and disorders. Put differently, the element at the heart of TTRPGs (group collaboration, communication, and social interaction in a neutral environment) shows potential to reduce symptoms of anxiety.

Kato's findings are a prime example of tabletop roleplaying games' potential to aid in the development of social skills in peer interaction, while the study by Kerr (2012) demonstrates the potential for shared social connection to reduce symptoms of mental health disorders that are otherwise deterred in a different group setting. In combination, Meriläinen (2012) ,Kato's (2019), and Kerr's (2012) research suggest that TTRPGs present a space for the development of emotional processing, communication, and social engagement in a shared space, all of which are key tools utilized in the treatment of depression and social anxiety.

<u>Session 1: The Present Study</u>

Tabletop roleplaying games like Dungeons & Dragons provide the potential to establish social connections in a unique setting outside of an individual's everyday experiences, as well as address negative personal experiences and specific mental disorders such as depression and social anxiety. The current study aimed to expand on the literature examining the association between role playing games and specific mental health disorders. We intended to identify any specific personality traits that might be more commonly associational with play in a TTRPG. However, we were not able to

create a clear hypothesis for this subsection of the study. Instead, we utilized a modified version of the Big Five Personality Test to investigate characteristics associated with TTRPG through exploratory research. Although there is limited research on the effects of TTRPGs in clinical settings, we know little about the experiences and motives of those who play for entertainment outside of these contexts. In this study, we surveyed players and non-players and investigated the relationships between participation in tabletop roleplaying games, anxiety, depression, and personality traits. Understanding these relationships allowed us to contribute to the knowledge of how TTRPGs might present an avenue to support mental and social health.

Given the findings of previous research on play therapy and anecdotal reviews on tabletop role playing game's use in a therapeutic setting we hypothesized that there is a positive association between tabletop roleplaying games and lower symptoms of depression and social anxiety.

METHODS

Participants

Following the approval of the study by the University of Maine Institutional

Review Board, a group of Psychology undergraduate students were invited to complete

the survey. After recruitment, 184 individuals ages 18 to 44 (*Average age* = 19.6)

participated, with 68.3% identifying as male, 26.8% female, 4.4% as genderqueer, and

0.5% choosing not to disclose. The 95 participants of those with experience playing

tabletop roleplaying games differed insignificantly in terms of gender identity: 74%

identified as male, 21% female, 4% Genderqueer, and 1% choosing not to disclose.

Participants self-identified as the following in terms of racial and ethnic identity: 90%

White, 5% Asian/Pacific Islander, 0.5% Native American, 2% Hispanic, 2% Black, and

0.5% Arab. Participants were able to select as many choices as were relevant for the

survey's race/ethnicity item, resulting in sum percentages that did not equal 100%.

Procedure

Individuals were recruited through the Psychology Undergraduate participant pool

and invited to participate via the provided Qualtrics survey tool link. After receiving the

online survey's consent form (see Appendix G), participants gained access to the survey

either through SONA or through an emailed link; both groups completed the survey on

Qualtrics. It was estimated to require between 30 to 45 minutes to complete - participants

who completed the survey via the Participant Pool were informed that they would earn

one credit for completing the survey. All individuals were given the opportunity to enter

a raffle for one of ten prizes and were informed that they would be able to select from a

$50 cash prize or a gaming accessory of equal value. Due to the use of sensitive questions

about mental health, each participant was provided with additional resources for contacting mental health professionals if any sections of the questionnaire prompted feelings of reservation, anxiousness, fear, or loneliness. They were also notified that some sections of the survey regarding depression and anxiety could make them uncomfortable. Individuals with responses that indicated high levels of depression were contacted via email, if they had provided their contact information at the end of the study, with additional mental health resources they could choose to take advantage of.

MEASURES

Demographics and Basic Information

Several items gathered information from participants regarding their gender identity, sex assigned at birth, age, ethnicity, political views (measured on a seven-point scale from "Extremely conservative" to "Extremely liberal"), socioeconomic status (rated on a scale from 1 to 10, where 10 represented the wealthiest and most educated individuals), sexual orientation, and religious identity (measured on a 1-7 scale, where 1 = Not at all religious and 7 = Very much religious).

Familiarity and Participation in Tabletop Roleplaying Games

Participants responded to several survey questions regarding their familiarity with tabletop roleplaying games. A single item measure, *"I am familiar with tabletop roleplaying games (like Dungeons and Dragons"),* was measured on a five-point scale, from "Not familiar at all" to "Extremely familiar". They were also asked to respond to the single item measure, *"How many times have you played a tabletop roleplaying game"* on a five-point scale from, "Never" to "More than 50 times."

Frequency and Desired Frequency of Tabletop Roleplaying Games

Individuals who responded to "Participation in tabletop roleplaying games" with any frequency besides, "Never" were then asked to answer the single item measure, *"How often do you currently play a tabletop roleplaying game?",* rated on a five-point scale, from "I do not currently play" to "Frequently (more than once a week)." Regardless of their response, participants were then asked the single item measure *"How often would you LIKE to play tabletop roleplaying games?",* rated on the same five-point scale.

Personal Enjoyment with Tabletop Roleplaying Games

Personal Enjoyment with tabletop roleplaying games was used to measure the experience participants' had had playing tabletop roleplaying games on a personal level, using a single item measure, "*I enjoy playing tabletop roleplaying games",* on a 5-point scale from "Strongly disagree" to "strongly agree".

Reason to Participate in Tabletop Roleplaying Games

Participants were asked to respond to a nine-item measure, *"One reason I play tabletop roleplaying games is because:",* on a 5-point scale from, "strongly disagree" to "strongly agree", using questions such as "*It strengthens my friendships with people I play with* and "*It gives me a chance to think strategically*". They were then asked to respond to an open-ended question about the perceived benefits of playing tabletop roleplaying games after responding to the Likert scale questionnaire.

Perceived Benefits of Mental Well-Being on Playing a Tabletop Roleplaying Game

The perceived benefits of playing a tabletop roleplaying game were measured using a single item measure, "*Playing tabletop roleplaying games benefits my mental well-being*"*,* rated on a 7-point scale, from "Strongly disagree" to "Strongly agree".

Player's Relationship with Their Character(s)

Participants completed a four-item measure that assessed how they preferred to roleplay as their character(s) during gameplay. Using a 7-point scale, from "Strongly Disagree" to "Strongly Agree", they responded to questions including, "*I prefer to play characters that are very much like me"* and "*When I play, I try to think like my character would think*".

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Self-Perceived Personality

Participants responded to a revised version of the Big Five Personality Traits Test, the Ten Item Personality Measure, which was used to measure the self-perceived personality of the individual participant. (Gosling et al., 2003) They responded to statements such as, "*I see myself as*", on a 10-item measure using a 7-point scale ranging from "Strongly disagree" to "Strongly agree". Example items include, "*extraverted, enthusiastic*", "*reserved, quiet*", and, *"open to new experiences, complex"* (Gosling et al., 2003).

Depressive Symptoms

Participants responded to the Center for Epidemiological Studies-Depression Scale, used to measure an individual's self-perceived level of depression in the last week based on somatic, cognitive, affective, interpersonal, and behavioral symptoms (Radloff, 1977). They were asked to respond to a 20-item measurement on a four piece scale, from "Rarely or none of the time (less than 1 day)" to "Most or all of the time (5-7 days)". Example items include, "*I did not feel like eating; my appetite was poor"* and *"I felt that everything I did was an effort"* (Radloff, 1977).

Symptoms of Anxiety

The survey utilized the Interaction Anxiousness Scale to measure each participant's self-perceived level of social anxiety (Leary 1983). They responded to the 15 item measure on a 5-point scale, where 1 = *Not at all characteristic of me* and 5 = *Extremely characteristic of me*. Example items included, *"I seldom feel anxious in social situations"* and *"I wish I had more confidence in a social situation"*.

Social Activities for Feelings of Social Anxiety

This single item measure was accessed only by participants who had selected that they had never participated in a tabletop roleplaying game. The item was used to measure the participant's perception of the benefits of social activities that did not include tabletop roleplaying games, in order to cope with feelings of social anxiety. They were asked to respond to the measure "*Social activities (ex: sports, club activities, etc.) help me deal with feelings of social anxiety*", on a 0-7 Likert Scale.

Social Activities for Feelings of Depression

Social Activities for Feelings of Depression was used to measure the participant's perception of the benefits of social activities that do not include tabletop roleplaying games in order to cope with feelings of depression. All participants, regardless of their experience or lack of experience with tabletop roleplaying games, completed a single item measure, "*Social activities (ex: sports, club activities, hiking, etc.) help me deal with feelings of depression*", which was rated on a 0-7 Likert scale.

Additional Questions for Players Only

Players were asked several additional exploratory open-ended and Likert-like questions (please see Appendix J for all items). These questions were not asked to participants with no experience with TTRPGs.

Open Ended Questions

In order to further investigate the relationship between depression, social anxiety, and tabletop roleplaying games, the survey included an array of open-ended questions, used to expand on the logic behind each participants' response to the item-based scales. Individuals who selected "Never" in response to the five-item scale measuring, *"How*

many times have you played a tabletop roleplaying game?" were asked to respond to two

open-ended questions (*"If you see benefits to Playing tabletop roleplaying games, what*

are they" and *"Other than tabletop roleplaying games, what activities do you partake in*

to cope with any social anxiety or depression you experience?"). Participants who

responded with any other scale measurement besides "Never" to that first question were

asked to answer six open paragraph questions. These included topics on why they might

have chosen to play, the perceived potential benefits of the game from their perspective,

how playing could affect their mental health, the personality traits of the players'

characters and whether they are like or unlike them, and if they view tabletop roleplaying

games as influencing their social relationships. Participants who self-identified as players

of tabletop roleplaying games were also asked to respond to the open question regarding

activities outside of tabletop roleplaying games that they participated in to cope with their

anxiety or depression[1].

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[1] Although we collected a rich amount data from these open-ended questions, a qualitative analysis
of them is outside the scope of this thesis

RESULTS

Player and Non-Player Statistics

Information on interest and experience in playing tabletop roleplaying games, as well as general data on a variety of different factors were first analyzed. Although there were some minor differences, there were no significant differences between those who had played TTRPGs and those who do not, in terms of demographics (i.e., age, gender, ethnicity, sexual identity, socioeconomic status, or political or religious background).

Experience with Tabletop Roleplaying Games

The results of the survey found that 27% of participants were not at all familiar with TTRPGs, while the remaining 73% ($N = 135$) were at least somewhat familiar. Among the total of 184 participants, 49.2% ($N = 90$) had never played a tabletop roleplaying game, but the remaining 50.8% did have some prior experience: 12.6% had played once, 23.5% had participated less than 10 times, 9.8% had played a TTRPG between 10 and 50 times, and 4.9% had played more than 50 times in the past[2]. Of the participants who had played before, just over half (50.5%; $N = 50$) reported that they did not currently play and so only approximately 20% of our total sample of 184 participants were currently active TTRPG players ($N = 37$)[3].

Reasons to Play

Participants who indicated they had ever played a TTRPG were asked about their reasons for doing so. Overall, participants moderately endorsed a variety of reasons for playing. The most commonly agreed upon was the use of tabletop roleplaying games as a

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[2] See Figure A for participant statistics on Past Participation in Tabletop Roleplaying Games
[3] See Figure B for participant statistics on Current Participation in Tabletop Roleplaying Games

place to think through actions strategically ($M = 5.03$, $SD = 1.66$)[4]. Participants, on average, also agreed that the game strengthened friendships with other players (*M = 4.97, SD = 1.58*) and created a chance to express their creativity (*M = 4.97, SD =* 1.70). In general, however, players expressed a variety of diverse reasons to play; from using the game as a situation in which to fully express ($M = 4.23$, $SD = 1.88$) and learn about themselves ($M = 3.89$, $SD = 1.82$), to creating an environment where the player learned how to become more comfortable with strangers ($M = 4.10$, $SD = 1.72$). Individuals who had experience with tabletop roleplaying games also reported that, in general, they felt the activity benefited their mental health and well-being (*M = 4.5, SD =* 1.63).

Personality

Personality type was measured on the Ten Item Personality Measure (Gosling et al., 2003), though there were no significant differences in personality between players and non-players. However, data showed that frequency of play was negatively associated with conscientiousness ($r = 0.22$, $p = 0.047$)[5], while the same variable was positively associated with openness ($r = 0.10$, $p = 0.374$). Consistent with previous research, lower conscientiousness and emotional stability were associated with greater symptoms of depression and anxiety.

Depression and Anxiety

Based on data analysis from the Center for Epidemiological Studies - Depression Measure ($M = 18.7$, $SD = 11.6$) and the Social Interaction Anxiety Scale ($M = 2.85$, $SD = 0.71$), we found moderately high levels of depression and anxiety amongst both participants who had played and those who had never played a tabletop roleplaying game.

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[4] See Table 1 for key variables
[5] See Table 2

Although on average participants endorsed the idea that TTRPGs improved their mental health, there was no significant association between that belief and lower rates of depression ($r = 0.102$, $p = 0.35$; See Table 2) or anxiety ($r = 0.09$, $p = 0.39$; See Table 2) among players.

Importantly, greater frequency of play, especially *current* frequency of play, was associated with higher reported symptoms of depression ($r = 0.236$, $p = 0.035$; see Table 2) and social anxiety ($r = 0.256$, $p = 0.02$; see Table 2). The relationship between current play and depression approached significance when controlling for well-known predictors of depression like emotional stability ($R^2 = .419$; $\beta = 2.48$, $p = .053$; See Table 3 for regression analysis).

DISCUSSION

The present study examined participants' experiences with tabletop roleplaying games and the relationship between TTRPGs and mental health. We found that participants endorsed diverse reasons for play from practicing social skills, to developing friendships, to thinking strategically. Contrary to our hypothesis, current frequency of play was associated with higher levels of depression and anxiety symptoms as well as lower conscientiousness. These relationships persisted even when controlling for personality predictors of depression like emotional stability. Further, participants' belief that TTRPGs supported one's mental health was not associated with depression or anxiety measures.

We did not expect our data to find that depression and anxiety were positively associated with current frequency of play, as we hypothesized that greater play would reduce depression and anxiety. However, this reveals the challenge of interpreting cross-sectional data from a single time point. The association between higher levels of depression and current frequency of play *could* indicate that play exacerbates those symptoms. However, an alternative frame of interpretation suggests that people who experience more symptoms of depression and anxiety may be more likely to seek out play more regularly because of those heightened symptoms. This is supported by our findings that many players, especially those who play regularly, see TTRPGs as an activity that supports their mental health. Further investigation on the relationship between TTRPGs and mental health could benefit from longitudinal or intervention-style studies to interpret the relationship between these two factors alone.

The second interpretation of our data set is supported by research that indicates symptoms of depression may be directly reduced through in-person social contact (Green et al., 2012; Seligman et al., 19991). More recent studies (Kato, 2019; Meriläinen, 2012) have begun to draw connections between tabletop roleplaying games and emotional and social development. The combination of a reduction in depressive symptoms through in-person social connections (Seligman et al., 1991) and emotional and personal development through tabletop roleplaying games (Kato, 2019) demonstrates the potential for the game's usage to reduce mental health difficulties and disorders

Although the specific examination of mental disorders and their interaction with tabletop roleplaying games has yet to be thoroughly explored, our data did support the relationship between tabletop roleplaying games and depression and anxiety, with findings that showed a negative correlation between these factors rather than the positive correlation we hypothesized. Some studies on this relationship have found less linkage than the results of our survey. For instance, a study by Taylor (2018) found little correlation between TTRPGs and emotional distress (measured by depressiveness, anxiousness and social withdrawal on the International Personality Item Pool). However, the conclusions drawn from our research and that of Taylor (2018) was inconsistent with findings from Kerr's (2021) research, which found a statistically significant decrease in symptoms of depression and social anxiety. The study examined these results through a series of Anova tests and a single one-sample test. However, it should be taken into account that Kerr's research concentrated solely on the LGBTQ+ community's response to tabletop roleplaying games and the location of study in California, as well as certain

social and emotional experiences outside of research that may have contributed to the differentiation in data (Kerr, 2021).

Our survey data is also inconsistent with Abbott, Stauss & Burnett (2021), who found a positive correlation between participation in a TTRPG and the reduction of social anxiety in a treatment setting over a year-long longitudinal analysis. Despite the inconsistency of our results to previous studies, the most notable difference is our survey's cross-sectional rather than longitudinal structure. The results of research by Abott et al. (2021) indicates that the greatest difference from our own survey is based on the length of time involved in other studies on TTRPG gameplay and mental health. This suggests that research on this topic must be structured around multiple events over several years to more accurately track a decrease (or lack thereof) in depressive and anxious symptoms.

The conflicting results of Kerr (2021) and Abbott et al. (2021) to our own data could also be attested to the small, mainly cis-gendered and male dominant participation pool. The difference that age, location, and gender identity produce in research is demonstrated here, further suggesting the need for wide ranging research in this field. However, the demographics of participants in TTRPGs have rapidly expanded in recent years from the games' white patriarchal origins; players today come from a diverse sample of race, gender, and sexuality. Kerr notes that symptoms of depression and anxiety were most reduced in LGBTQ+ participants who played with other players of the same community. Therefore, we should consider that a difference in results could be due, in part, to the relationship between TTRPGs and mental health in different demographics. Investigation into these relationships in smaller sub-communities using more nuanced

methods, including qualitative research, could provide a greater understanding of the differentiation of results between studies on the same topic.

Participation and interest in a tabletop roleplaying game was theorized in this study to be associated with certain personality types because the collaboration and strategic cooperation required to play suggest potential relationships with agreeableness and conscientiousness (Sussex, 2022). We observed the more frequent players were indeed more likely to be open to experience. However, our survey results also demonstrated an inverse relationship with conscientiousness, finding that higher frequent play was associated with less conscientiousness.

Previous studies have examined personality characteristics in association with isolation (Schutter et al., 2020; Whaite et al., 2018) and found that lower levels of extraversion and agreeableness in personality were correlated with a lower likelihood of isolation in two separate and varied age groups. We speculate that the difference between our data and other studies investigating isolation and loneliness in relation to depression in certain personality traits could be the result of several factors, including the specific social environment of the individuals involved in research, as well as the participant's personal interests and experience in social activities. However, we are beginning to see increased participation in activities that include roleplaying with the popularity of TTRPGs as a mechanism to cope with isolation in the context of quarantining at the height of the COVID-19 pandemic. With a broader acceptance of roleplaying as a form of entertainment, its potential as a therapeutic modality has begun to garner further attention. Although we did not systematically analyze the qualitative data from our own survey, some example comments demonstrated some players' engagement with TTRPGs

as a coping mechanism for stress, anxiety, and an opportunity to create and reinforce social relationships.

Past research on both drama and play therapy have found both therapeutic models to be effective in aiding in the development of social skills, emotional well-being and development (Oberg, 2012), and emotional connection (Schrader, 2021). Extensive literary reviews have also investigated the use of roleplaying outside of a specific gameplay or acting structure and suggested its potential as a method to create peer connections (Walsh, 2020), self-concept (Berg, 1989), healthy community collaboration (Roberts, 1999) engagement in academic and clinical content (King et al., 2015) and empathy towards others (Silton, Riley, and Anzovino, 2020). As of now, the greatest difference between drama and play therapy and tabletop roleplaying games is the clinical approval of the former as a therapeutic modality and the latter as a platform for group-involved entertainment. However, the gap between roleplaying in both forms is steadily narrowing, as seen by recently established programs such as Game to Grow and the incorporation of RPG Therapy into private psychotherapeutic practice (Boulder, 2022; RPG LLC, 2022).

LIMITATIONS AND FUTURE STUDIES

The recent increase in popularity of tabletop roleplaying games has created an opportunity for researchers to establish national or international studies on players' involvement in tabletop roleplaying games and the reasons in which they choose to play. A larger sample size with greater diversity in gender identity, age, socioeconomic status, and numerous locations of participants could allow researchers to control factors in order to identify the direct relationship between such gameplay and mental health disorders. To this end, clinical intervention studies with access to psychiatric analysis would provide a controlled setting in which to observe and evaluate tabletop roleplaying games' interaction with patients' mental health directly.

The development of social connections is dependent on numerous interactions, rather than a single event, and therefore the benefit of a longitudinal investigation of both national/international and intervention studies cannot be overstated. Therefore, future studies should prioritize longitudinal research, in order to track the progress of depression and social anxiety in individuals as they interact with others through tabletop roleplaying games.

The limitations of our study demonstrate the importance of future analysis in the field of tabletop roleplaying games' potential as a therapeutic modality. Our results were limited to a cross-sectional analysis of the survey from one point in time. A longitudinal study would have allowed us to review symptoms of depression and social anxiety as a function of playing TTRPGs over time. We were unable to reduce the influence of outside factors (the demographics of the participant pool, variation in experience that

participants had with TTRPGs, outside interests that limited participation in the game, etc.) that could have played a role in the results of our data. The source of data was also limited to the demographics of participants as 90% White, 68.3% identifying as male, and a mean age of 19.3. In a sample size of 184 participants, only 9 individuals had participated in TTRPGs more than 50 times, suggesting a limited understanding of the games' interaction with social engagement, which itself is found to effect symptoms of depression and social anxiety (Santini et al., 2020). A larger, more diverse population from multiple locations outside of a university setting could provide a greater sample size, as well as a more representative analysis of data on depression, social anxiety, and its interaction with involvement in TTRPGs.

Furthermore, the source of our data was restricted to online responses only; an in-person interview or controlled group gameplay could allow researchers to more directly analyze an individual's participation in TTRPGs and provide a greater understanding of the interaction of gameplay with their social and psychological experience. Our analysis of the survey was restricted to a short period of time which did not allow for a deeper investigation on the qualitative data we received. With further review of our survey's open-ended questions, we could have been allowed greater access to informative data on the similarities and differences (or lack thereof) in personality and reasoning to participate in TTRPGs. The results of our survey found that involvement in the game is similar to other forms of therapy in that some methods are considered effective towards certain individuals, while others connect to a variety of different clinical modalities. Therefore, it is critical to establish future studies to create a further understanding of

individuals' experience with tabletop roleplaying games and its relationship with mental

health disorders.

CONCLUSION

As a form of social interaction and enjoyment, TTRPGs provide competitiveness, guided gameplay, and decision making in a single group- based form, rather than a host of separate activities. However, investigation on the clinical effectiveness of tabletop roleplaying games has only just begun. The development of TTRPGs in the public eye has discouraged participation in the game in decades past. Due in part to the very nature of 'play', especially roleplaying, as a child's occupation in the public's view has created limits around individuals' interest in activities that are commonly considered socially immature. To this end, Sung (2021) perfectly summarizes the hesitation towards adult participation in TTRPGs as a part of socially determined limitations on genuine engagement in play that is viewed as childlike. However, the normalization of similar forms of entertainment, such as single and multiplayer video games, have begun to slowly create an avenue of interest towards in-person roleplaying games, as demonstrated by increasingly popular podcasts such as *Critical Role* and *The Adventure Zone*. While our results found little difference in symptoms of depression and social anxiety between participants who played tabletop roleplaying games and those who did not and no difference in personality traits such as agreeableness and conscientiousness, other studies have pursued similar investigations with significantly different findings. Recent public interest in TTRPGs presents an opportunity to establish studies on this topic with a much larger group of participants from diverse backgrounds and social experiences. The decades-long practice of drama, art, and roleplaying therapies attests to the games' possibility as an additional form of therapeutic relief from the isolation created by depression and social anxiety. Therefore, further research must be done in order to better

understand the potential positive interaction between tabletop roleplaying games and

mental health risks.

REFERENCES

Abbott, M., Stauss, K., & Burnett, A. (2022) Table-top role-playing games as a therapeutic
intervention with adults to increase social connectedness, Social Work with Groups, 45:1,
16-31, DOI: 10.1080/01609513.2021.1932014

Allison, P. R. (2021, April 23). *Tabletop Roleplaying has Given Players Comfort, Connection
and Control in a World That's Taken Them Away*. Dicebreaker. Retrieved March 1, 2022,
from https://www.dicebreaker.com/categories/roleplaying-game/feature/tabletop-
roleplaying-comfort-connection-control-covid-19

American Psychiatric Association. (2017, April 24). *Majority of Americans say they are anxious
about health; millennials are more anxious than baby boomers*. American Psychiatric
Association. Retrieved February 18, 2022, from
https://www.psychiatry.org/newsroom/news-releases/majority-of-americans-say they-are-
anxious-about-health-millennials-are-more-anxious-than-baby-boomers

Batastini, A. B., Paprzycki, P., Jones, A. C. T., & MacLean, N. (2021). Are videoconferenced
mental and behavioral health services just as good as in-person? A meta-analysis of a
fast-growing practice. *Clinical Psychology Review*, *83*, 101944.
https://doi.org/10.1016/j.cpr.2020.101944

Berg, G. (1989). The effects of goal-oriented, sociodramatic roleplaying on the locus of control,
self concept, and psychiatric adjustment of schizophrenic patients. *Dissertation Abstracts
International*, *49(7-B)*, 2842–2843.

Boulder Valley Psychotherapy. (2022). *Therapeutic RPG - Psychological and Therapy Services*.
Boulder Valley Psychotherapy. Retrieved March 13, 2022, from
https://bouldervalleypsychotherapy.com/rpg-therapy

Bowman, S.L., Liberoth, A., 2018. Psychology and role-playing games, in: RolePlaying Game
Studies: A Transmedia Approach. Routledge, New York.

Bratton, S., & Ray, D. (2000). What the research shows about play therapy. *International
Journal of Play Therapy*, 9(1), 47
https://doi-org.wv-o-ursus-proxy02.ursus.maine.edu/10.1037/h0089440

Brodeur, N. (2018). *Behind the scenes of the making of dungeons & dragons*. The Seattles Times. Retrieved January 6, 2022, Retrieved https://www.seattletimes.com/life/lifestyle/behind-the-scenes-of-the-making-of-dungeons-dragons

Caroll, B.; Winter, S., (February 6, 2009). "Name Level". *Dragon*. No. 372. Wizards of the Coast. Archived from the original on April 15, 2012.

COVID-19 Mental Disorders Collaborators (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *Lancet (London, England)*, *398*(10312), 1700–1712. https://doi.org/10.1016/S0140-6736(21)02143-7

Critical Role - Statistics. TwitchTracker. (2022, February 25). Retrieved February 22, 2022, from https://twitchtracker.com/criticalrole/statistics

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five

Green, M. J., Whitley, E., Niedzwiedz, C. L., Shaw, R. J., & Katikireddi, S. V. (2021). Social contact and inequalities in depressive symptoms and loneliness among older adults: A mediation analysis of the English Longitudinal Study of Ageing. *SSM - population health*, *13*, 100726. https://doi.org/10.1016/j.ssmph.2021.100726

Haberman, C. (2016, April 17). *When Dungeons & Dragons Set Off a 'Moral Panic'*. The New York Times. Retrieved March 1, 2022, from https://www.nytimes.com/2016/04/18/us/when-dungeons-dragons-set-off-a-moral-panic.html

Henrich, S., & Worthington, R. (2021, December 4). *Let Your Clients Fight Dragons: A Rapid Evidence Assessment regarding the Therapeutic Utility of 'Dungeons & Dragons'*. Taylor & Francis Online. Retrieved January 4, 2022, from https://www-tandfonline-com.wv-o-ursus-proxy02.ursus.maine.edu/doi/full/10.1080/15401383.2021.1987367

House, R. (1970). The effects of nondirective group play therapy upon the sociometric status and self-concept of selected second grade children (Doctoral dissertation, Oregon State University, 1970). Dissertation Abstracts International, 31, 2684.

Hughes, J. (1988). *Therapy is Fantasy: Roleplaying, Healing and the Construction of Symbolic Order*. Paper presented in Anthropology IV Honours, Medical Anthropology Seminar, Dr. Margo Lyon, Dept. of Prehistory & Anthropology, Australian National University. Retrieved March 7, 2022, from the World Wide Web: http://www.rpgstudies.net/hughes/therapy_is_fantasy.html

Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No More FOMO: Limiting Social Media Decreases Loneliness and Depression. Journal of Social and Clinical Psychology, 37(10), 751-768. https://doi.org/10.1521/jscp.2018.37.10.751

Ibrahimi. (2020, May 2). *Top 10 most popular online games of 2020 – most played games*. TechSprobe. Retrieved March 19, 2022, from https://techsprobe.com/top-10-most-popular-online-games-of-2020-most-played-games/

Katō, Kōhei. 2019. "Employing Tabletop Role-Playing Games (TRPGs) in Social Communication Support Measures for Children and Youth with Autism Spectrum Disorder (ASD) in Japan: A Hands-On Report on the Use of Leisure Activities." *Japanese Journal of Analog Role-Playing Game Studies*, 0: 23-28. DOI: 10.14989/jarps_0_23

Kerr, D. (2021). Slaying the Dragon: Using Tabletop Roleplaying Games to Combat SAD in the LGBTQ+ Community. *Electronic Theses & Dissertations (ETDs)* , *5991*.

King, J., Hill, K., & Gleason, A. (2015, March 16). *All the world's a stage: Evaluating psychiatry role-play based learning for medical students*. Web. Retrieved March 15, 2022, from https://web-p-ebscohost-com.wv-o-ursus-proxy02.ursus.maine.edu/ehost/detail/detail?vid=17&sid=e7ee0985-90b3-477c-94fb-9bd83916c83e%40redis&bdata=#db=psyh&AN=2015-03170-019

Kipling, E. (2021, October 6). *Who is criticalrole, Twitch's highest earner who makes almost $10M?* HITC. Retrieved February 21, 2022, from https://www.hitc.com/en-gb/2021/10/06/critical-role-twitch/

Lazarus, D. (2020, October 9). *D&D nerds (like me) are donning virtual armor and venturing online amid pandemic*. Los Angeles Times. Retrieved March 17, 2022, from https://www.latimes.com/business/story/2020-10-09/coronavirus-dungeons-and-dragons

Lee, S. L., Pearce, E., Ajnakina, O., Johnson, S., Lewis, G., Mann, F., Pitman, A., Solmi, F., Sommerlad, A., Steptoe, A., Tymoszuk, U., & Lewis, G. (2020). The association between loneliness and depressive symptoms among adults aged 50 years and older: A 12-year population-based Cohort Study. *The Lancet Psychiatry*, *8*(1), 48–57. https://doi.org/10.1016/s2215-0366(20)30383-7

Lin, L. Y., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Hoffman, B. L., Giles, L. M., & Primack, B. A. (2016). ASSOCIATION BETWEEN SOCIAL MEDIA USE AND DEPRESSION AMONG U.S. YOUNG ADULTS. *Depression and anxiety*, *33*(4), 323–331. https://doi.org/10.1002/da.22466

Marcus, M., Yasamy, M. T., van Ommeren, M., Chisholm, D., & Saxena, S. (2012). Depression: A Global Crisis. *PsycEXTRA Dataset*, 3–4. https://doi.org/10.1037/e517532013-001

McIntosh, N. (2003, February 18). *Google buys blogger web service*. The Guardian. Retrieved March 21, 2022, from https://www.theguardian.com/business/2003/feb/18/digitalmedia.citynews

Mental Health America. (2022). *The State of Mental Health in America*. Mental Health America. Retrieved March 2, 2022, from https://www.mhanational.org/issues/state-mental-health-america

Meriläinen, M. (2012, January). *The self-perceived effects of the role-playing hobby on personal development - a survey report*. Research Gate. Retrieved January 7, 2022, from https://www.researchgate.net/publication/328314382_The_self-perceived_effects_of_the_role-playing_hobby_on_personal_development-a_survey_report

Merriam-Webster. (2022). *Role-play definition & meaning*. Merriam-Webster. Retrieved March 1, 2022, from https://www.merriam-webster.com/dictionary/role-play

Meshi, D., Ellithorpe, M. (2021, August). Problematic social media use and social support received in real-life versus on social media: Associations with depression, anxiety and social isolation, *Addictive Behaviors*, Volume 119,106949, ISSN 0306-4603, from https://www.sciencedirect.com/science/article/pii/S0306460321001349

Michaud, Jon (November 2, 2015). "The Tangled Cultural Roots of Dungeons & Dragons". *The New Yorker*. Retrieved February 22, 2022.

Oberg, R. (2012). Social skills, emotional growth and drama therapy: inspiring connection on the autism spectrum, by Lee R. Chasen. Dramatherapy. 34. 10.1080/02630672.2012.704199.

Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. yi, Rosen, D., Colditz, J. B., Radovic, A., & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*, *53*(1), 1–8. https://doi.org/10.1016/j.amepre.2017.01.010

Ratnani, I. J., Vala, A. U., Panchal, B. N., Tiwari, D. S., Karambelkar, S. S., Sojitra, M. G., & Nagori, N. N. (2017). Association of social anxiety disorder with depression and quality of life among medical undergraduate students. *Journal of family medicine and primary care*, *6*(2), 243–248. https://doi.org/10.4103/2249-4863.219992

RPG LLC. (2022). *Therapeutic Services*. RPG LLC. Retrieved March 16, 2022, from https://rpg.llc/services/therapeutic

Santini, Z. I., Jose, P. E., York Cornwell, E., Koyanagi, A., Nielsen, L., Hinrichsen, C., Meilstrup, C., Madsen, K. R., & Koushede, V. (2020). Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): A longitudinal mediation analysis. *The Lancet Public Health*, *5*(1). https://doi.org/10.1016/s2468-2667(19)30230-0

Schrader, C. (2012). Healthy attachments and neuro-dramatic-play, by Sue Jennings, Dramatherapy, 34:1, 47-49, DOI: 10.1080/02630672.2012.658209

Scriven, P. (2021). From Tabletop to Screen: Playing Dungeons and Dragons during COVID-19. *Societies*. 2021; 11(4):125. https://doi.org/10.3390/soc11040125

Schutter, N., Koorevaar, L., Holwerda, T., Stek, M., Dekker, J., & Comijs, H. (2020). 'Big Five' personality characteristics are associated with loneliness but not with social network size in older adults, irrespective of depression. *International Psychogeriatrics, 32*(1), 53-63. doi:10.1017/S1041610219000231

Seligman, M. E. P., Schulman, P., DeRubeis, R. J., & Hollon, S. D. (1999). The prevention of depression and anxiety. *Prevention & Treatment, 2*(1), Article 8a. https://doi.org/10.1037/1522-3736.2.1.28a

Silton, N., (Ed) Riley, P., Anzovino, Amanda, (2020). <u>Exploring best child development</u>
<u>practices in contemporary society.</u> pp. 109-147; Hershey, PA, US: Medical Information
Science Reference/IGI Global; 2020. xxii, 305 pp.

Sussex Publishers. (2022). *Agreeableness*. Psychology Today. Retrieved March 13, 2022, from
https://www.psychologytoday.com/us/basics/agreeableness

Tanen, A. (2021, December 13). *7 dungeons & dragons statistics you should know about*. Dice
Cove. Retrieved January 14, 2022, from https://dicecove.com/dnd-statistics/

Taylor, G. R. (2018). *Tabletop roleplaying games as emotional resiliency factor* (Order No.
10979240). Available from ProQuest Dissertations & Theses Global. (2150207575).
Retrieved from
https://library.umaine.edu/auth/EZproxy/test/authej.asp?url=https://search.proquest.com/
dissertations-theses/tabletop-roleplaying-games-as- emotional/docview/2150207575/se-
2?accountid=14583

Teo, A. R., Choi, H., Andrea, S. B., Valenstein, M., Newsom, J. T., Dobscha, S. K., & Zivin, K.
(2015). Does Mode of Contact with Different Types of Social Relationships Predict
Depression in Older Adults? Evidence from a Nationally Representative Survey. *Journal
of the American Geriatrics Society*, *63*(10), 2014–2022. From
https://doi.org/10.1111/jgs.13667

The Game to Grow Method. Game to Grow. (2022, February 21). Retrieved February 25, 2022,
from https://gametogrow.org/training/gtgmethod/

Twenge, J., Spitzberg, B., & Campbell, K. (2019, March 19). *Less in-person social interaction
with peers among U.S. adolescents in the 21st century and links to loneliness*. Journal of
Social and Personal Relationships. Retrieved February 21, 2022, from
https://journals.sagepub.com/doi/abs/10.1177/0265407519836170

Walsh, L. A. (2020). *The effect of peer role-play on empathy development in nursing students*
(Order No. 28023199). Available from ProQuest Dissertations & Theses Global;
Worldwide Political Science Abstracts. (2466049128). Retrieved from
https://library.umaine.edu/auth/EZproxy/test/authej.asp?url=https://search.proquest.com/
dissertations-theses/effect-peer-role-play-on-empathy-
development/docview/2466049128/se-2?accountid=14583

Whaite, E., Shensa, A., Sidani, E., Colditz, J., Primack, B. Social media use, personality
characteristics, and social isolation among young adults in the United States, Personality
and Individual Differences, Volume 124, 2018, Pages 45-50, ISSN 0191-8869,
https://doi.org/10.1016/j.paid.2017.10.030.

Whitten, S. (2021, February 8). *Disney+ will fuel Hasbro gains long after the pandemic is over
as Star Wars Toy Sales jump*. CNBC. Retrieved February 24, 2022, from
https://www.cnbc.com/2021/02/08/disney-will-fuel-hasbro-gains-long-after-the-
pandemic-is-over.html

Wilson, D. (2008, February 25). *An exploratory study on the players of 'dungeons and dragons'*.
Dissertation Abstracts International: Section B: The Sciences and Engineering. Retrieved
January 7, 2022, from https://web-s-ebscohost-com.wv-o-ursus-
proxy02.ursus.maine.edu/ehost/detail/detail?vid=4&sid=2e8ba04a-6935-4368-9599-
65b05b6dbb4a%40redis&bdata=#AN=2008-99020-089&db=psyh

APPENDICES

Figure 1: How many times have you played a Tabletop Roleplaying Game?

How many times have you played a Tabletop Roleplaying Game?

- Never — 48.9%
- Once — 12.9%
- Less than 10 times — 23.12%
- 10-50 times — 10.22%
- More than 50 times — 4.84%
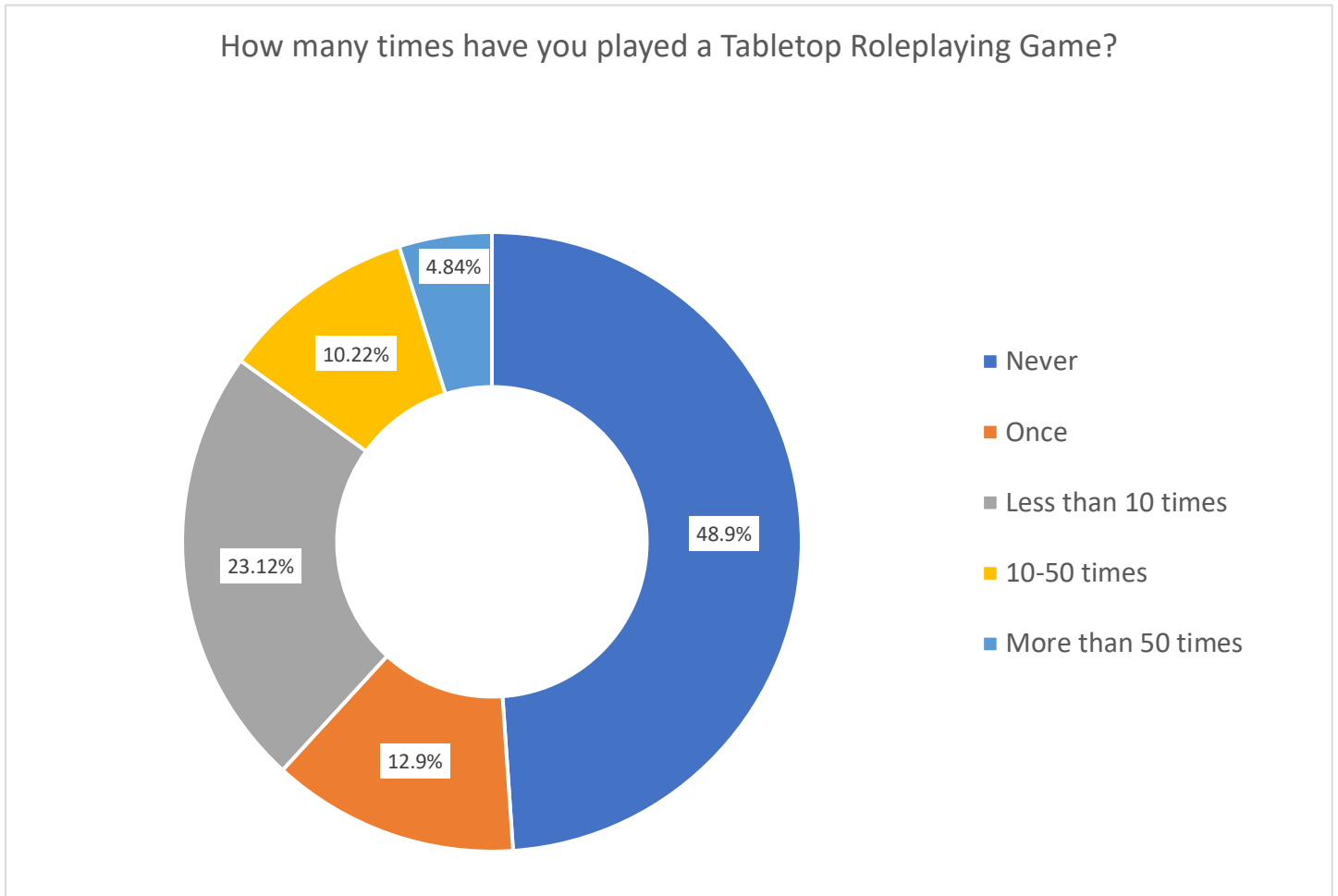
Figure 2: Current Participation in Tabletop Roleplaying Games
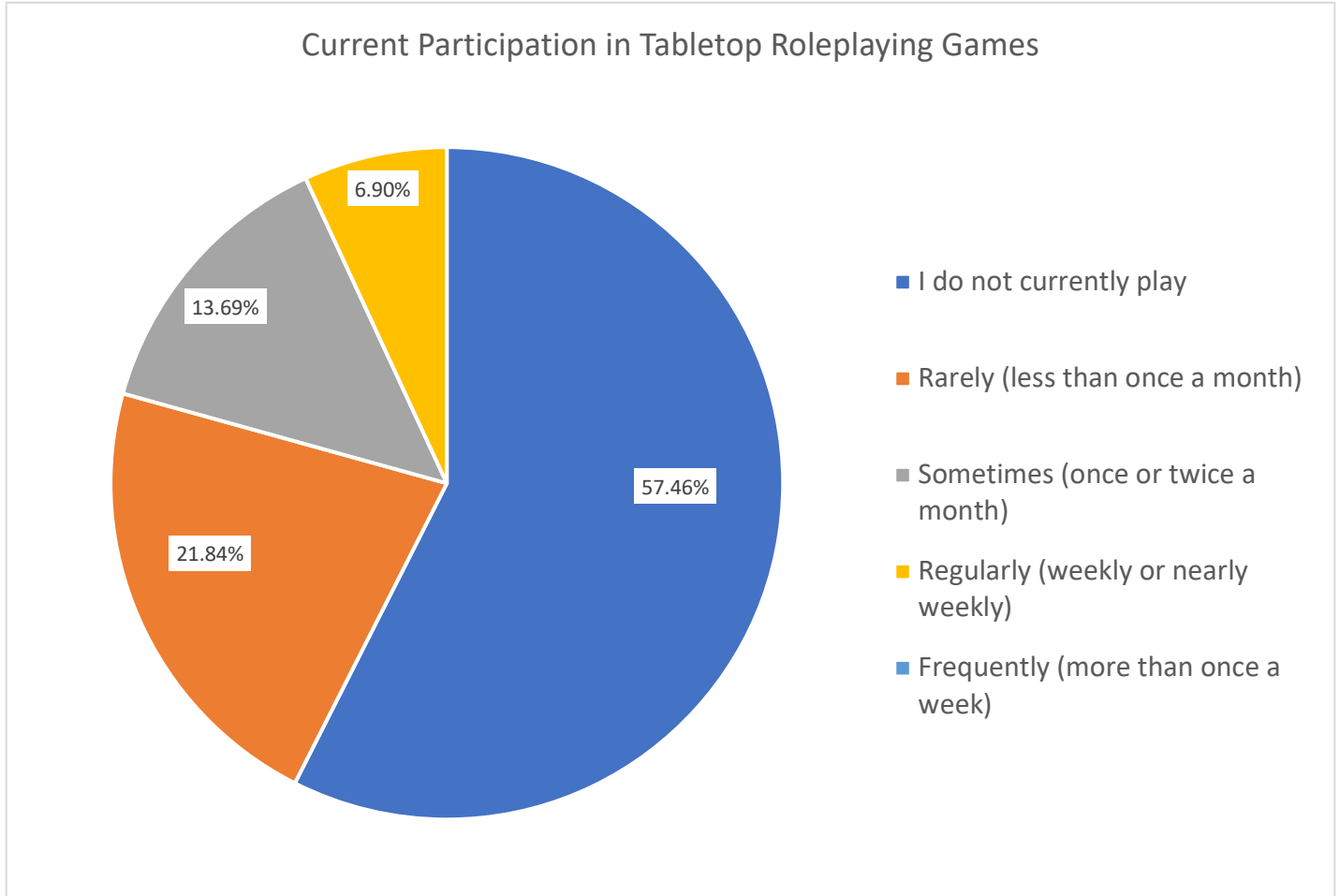
APPENDIX C: TABLE 1

Table 1: Participant Mean Responses to, "One reason I play Tabletop Roleplaying Games because…"

Descriptives

	It strengthens my friendships with people I play with	It gives me a chance to compete	It gives me a chance to express my creativity	It gives me a chance to think strategically	It helps me make friends with people outside of my gaming group	It allows me to feel free to fully express myself	It allows me to learn about myself	It makes me more comfortable interacting with strangers
N	92	92	90	92	90	92	92	92
M	4.96	4.21	4.98	5.03	4.01	4.21	3.91	4.08
SD	1.59	1.74	1.73	1.66	1.77	1.81	1.82	1.73

Table 2: Zero-Order Correlation Between All Scale-Based Survey Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	*M*	*SD*
1. TTRPG Participation	--											8.19	1.53
2. Current Frequency of Play	.54**	--										1.70	.95
3. Enjoyment of TTRPGs	.47**	.52**	--									3.51	1.21
4. TTRPGs for Mental Health	.43**	0.42**	.71**	--								4.49	1.64
5. Extraversion	-.17	-.17	-.16	-.14	--							4.12	1.46
6. Agreeableness	.08	-.17	.27*	.33**	-.08	--						4.53	1.02
7. Conscientiousness	-.20**	-.22*	-.07	-.03	.01	-.01	--					4.63	1.12
8. Emotional Stability	-.01	-.20	.01	.05	-.04	.03	.31**	--				4.19	1.35
9. Openness to Experience	-.02*	.10	.23*	.03**	.32**	.27**	.12	.08	--			5.13	1.04
10. Depression	.15*	.24*	-.02	-.10	-.08	-.08	-.36**	-.57**	-.04	--		2.85	0.71

Table 2: Zero-Order Correlation Between All Scale-Based Survey Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	*M*	*SD*
11. Social Anxiety	.05	.26*	.12	.09	-.47**	.07	-.26**	-.49**	-.22*	.42**	--	18.73	11.56

*Note: * p < .05, ** p < .01*

Table 3: Regression Model Between Current Frequency and Depression, Controlling for Emotional Stability

Model Coefficients - CES_DTOT

	ß	*t*	*P*	*R²*	*Sig. R²*
				0.419	.000**
Intercept	38.31	9.08	.000**		
Current Frequency of Play	2.48	1.96	0.053		
Emotional Stability		5.98	.000**		

*Note: * p < .05, ** p < .01*

APPENDIX F

IRB APPROVAL

Application #: 2021-11-09
Title: Tabletop Roleplaying Games and Mental Health
PI: Noelle Ott
Approval Period End Date: **12/3/2022**

The Institutional Review Board for the Protection of Human Subjects (IRB) reviewed the above referenced application in expedited review and approved it on 12/4/2021. We will contact you in December 2022 to check with you if the application should be closed.

Attached is the approved copy of the application. <u>The approved informed consent form must be duplicated and used when enrolling subjects.</u>

Please remember that each subject must be given a copy of the informed consent document. Any unanticipated problems or injury to the subject must be reported to the IRB. Any proposed changes to the research must be approved by the IRB prior to implementation. If you require a modification in the future please visit our website for instructions.

Please contact me if you have any questions. Thank you.

Best regards,

Paula

Paula Portalatin, M. Ed., CPIA, CIP
Assistant Director of Research Compliance
University of Maine | Alumni Hall Room 311
(207) 581-2657

<u>**Application Narrative:**</u>

Funding: N/A

Summary:

The origins of Tabletop Roleplaying Games can be traced back to 6th century India, where the popularity of *chaturanga*, an early form of chess, rose to prominence (Ewalt, 2014). Research on the concept of Roleplaying has existed since the 1940s (Lippitt, 1943), and has assessed its influence on trait aggression (Rotter and Wickens, 1947), education, and attitude formation in the late twentieth century (Bowman & Lieberoth, 2018). Yet research on the influence of Tabletop Roleplaying Games has only begun to examine the positive social, emotional, and developmental implications of participation.

Previous research on the Tabletop Roleplaying Game *Dungeons and Dragons* has explored the merit of roleplaying as an effective device in overcoming emotional limitations, including the reduction of depression and anxiety in a therapeutic context (Blackmon, 1994). Bratton and Ray (2000) examined the use of play therapy in younger individuals and noted its influence in increased development of social maturity and reduced anxiety. To extend the understanding of role playing games in an emotional context, we will examine the relationship between symptoms of mood disorders, such as depression and social anxiety, and Tabletop RPGs..

We will investigate these questions with a self-report survey. We expect that participants with experience in Tabletop Roleplaying games will self-report connections between TTRPGs and their mental health. This research will expand our psychological understanding of roleplaying games and inform the potential application of roleplaying for an individual's social and emotional well-being.

Proposed Honors Thesis: **Playing role-playing games can be associated with strong mental well-being**

Participants:

We will recruit at least 300 participants (who are over 18) for the study. We will attempt to recruit all participants through the Psychology Department Participant Pool. However, since the goal of the study is a profile of players of TTRPGs, we want to get as large a sample as possible, especially of TTRPG players. So we will supplement the Participant Pool recruitment by posting a survey link on social media sites, e-mailing gaming groups and personal contacts, and following up with people suggested by our participants.

Methods

Upon approval of the proposal, participants will be invited to take the survey via a link provided by the Qualtrics survey tool either through the participant pool or through an e-mail. Those who choose to participate will complete the survey online. The survey may take 30-45 minutes depending on how long participants take to respond to items. This survey will contain a variety of measures, described below. The study is

confidential. Participants will be invited to provide their email address and identity at the end of the study for entry into a raffle and to potentially be contacted for future research. <mark>Dr. LaBouff hopes to follow up with some of these participants who opt-in for their contact information to be retained in future studies for more surveys, interviews, or experimental designs on this topic.</mark>

Measurement
- Demographic information
  - Participants will be asked to provide their
    - Preferred Gender Identity
    - Sex Assigned at Birth
    - Age
    - Ethnicity
    - Political Views (measured on a seven point scale from "Extremely Conservative" to "Extremely Liberal")
    - Socioeconomic Status (rated on a scale from 1-10, where 10 = the wealthiest and most educated individuals)
    - Sexual Orientation
    - Religious Identity (measured on a 1-7 scale, where 1 = Not At All Religious and 7 = Very Much Religious)
- Familiarity and Participation in Tabletop Roleplaying Games
  - Familiarity of Tabletop Roleplaying Games will evaluate the extent to which the participant is familiar with Tabletop Roleplaying Games. This single item measure, *"I am familiar with Tabletop Roleplaying Games (like Dungeons and Dragons",* will be measured on a five point scale, from "Not familiar at all" to "Extremely familiar".
  - Participation in Tabletop Roleplaying Games will evaluate whether or not the participant has had experience with this type of gameplay. The participant will respond to a single item measure, *"How many times have you played a Tabletop Roleplaying Game?",* on a five point scale, from "Never" to "More than 50 times".
    - Participants who select any scale point other than "never" will be asked to respond to an open-ended question, *"Why did you choose to play a Tabletop Roleplaying Game?".*

- Frequency of Tabletop Roleplaying Games

  - Frequency of Play will measure how often participants currently play on a five point scale, from "I do not currently play" to "Frequently (more than once a week)". The single item measure will ask, "*How often do you currently play a Tabletop Roleplaying Game?*"
  - Desired Frequency of Play will be measured on a five point scale, from "Not at all" to "Frequently (more than once a week)". The single item measure will ask, "*How often would you LIKE to play Tabletop Roleplaying Games?*"

- Personal Enjoyment with Tabletop Roleplaying Games

- o Personal Enjoyment with Tabletop Roleplaying Games will measure the experience participants have had on a personal level, using a single item measure, "*I enjoy playing Tabletop Roleplaying Games",* on a scale from "Strongly disagree" to "strongly agree".

- Reason to Participate in Tabletop Roleplaying Games
    - o Participants will be asked to respond to a nine item measure, *"One reason I play Tabletop Roleplaying Games is because:",* on a scale of "strongly disagree" to "strongly agree", using questions such as "*It strengthens my friendships with people I play with is important for my friendships*" and "*It gives me a chance to think strategically*".
        - o Participants will be asked to respond to an open-ended question about the personal benefits they see in playing Tabletop Roleplaying Games after responding to the Likert-like scale questionnaire.
- Perceived Benefits of Playing a Tabletop Roleplaying Game
    - o The perceived benefits of playing a Tabletop Roleplaying game will ask participants to respond to a single time measure, "*Playing Tabletop Roleplaying Games benefits my mental well-being*", rated on a 7 point scale, from "Strongly disagree" to "Strongly agree".
        - ▪ Participants will be asked to respond to an open ended question about how Tabletop Roleplaying Games impacts their mental well-being

- Personal Benefits of Roleplaying in Tabletop Roleplaying Games
    - o The Personal Benefits of Roleplaying through participation in Tabletop Roleplaying Games will be measured on a four item measure using a seven point scale, from "Strongly disagree" to "Strongly agree". Example questions include, "*I prefer to play characters that are very much like me"* and "*When I play, I try to think like my character would think*".
        - o Participants will be asked to respond to an open ended question about the personality traits of characters they have played as in Tabletop Roleplaying Games.
        - o Participants will be asked to respond to an open question about what they have learned about themselves.
        - o Participants will be asked to respond to an open ended question about how Tabletop Roleplaying games influence their social relationships.

- Ten Item Personality Measure (Gosling, et al.)
    - o An adaptation of the Big Five Personality Traits, The Ten Item Personality Measure will be used to measure the self-perceived personality of the participant (Gosling, et al). Participants will respond to the statement, "*I see myself as*", on a 10 item measure, using a 1-7 scale. Example items include, "*extraverted, enthusiastic*" and "*reserved, quiet*".

- Center for Epidemiological Studies-Depression Scale (Radloff, 1977)
  - The Center for Epidemiological Studies-Depression Scale will be used to measure the participant's self-perceived level of depression. Participants will be asked to respond to a 20 item measurement, based on their experiences during the past week. They will rate each item on a four piece scale, from "Rarely or none of the time (less than 1 day" to "Most or all of the time (5-7 days)". Example items include, "*I did not feel like eating; my appetite was poor*" and "*I felt that everything I did was an effort*".
  - Participants who score a 16 or greater (the cutoff for potentially clinically significant depression) will trigger an immediate automatic email to Dr. LaBouff who will follow up within one business day with additional resources (please see risk section)

- The Interaction Anxiousness Scale (Leary, 1983)
  - The Interaction Anxiousness Scale will be used to measure the participant's self-perceived level of social anxiety. Participants will respond to a 15 item measure using a five point scale, where 1 = Not at all characteristic of me and 5 = Extremely characteristic of me. Example items include "*I seldom feel anxious in social situations*" and "*I wish I had more confidence in a social situation*"

- Social Activities for Feelings of Social Anxiety
  - Social Activities for Feelings of Social Anxiety will be used to measure the participant's perceived benefits of social activities that do not include Tabletop Roleplaying Games to cope with feelings of social anxiety. Participants who do not participate in Tabletop Roleplaying Games will rate a single item measure, "*Social activities (ex: sports, club activities, etc.) help me deal with feelings of social anxiety*", on a 0-7 Likert Scale.
- Social Activities for Feelings of Depression
  - Social Activities for Feelings of Depression will be used to measure the participant's perception of the benefits of social activities that do not include Tabletop Roleplaying Games to cope with feelings of depression. Participants who do not participate in Tabletop Roleplaying Games will rate a single item measure, "*Social activities (ex: sports, club activities, hiking, etc) help me deal with feelings of depression*", on a 0-7 Likert scale.
    - Participants will be asked to respond to an open ended question about what activities they participate in to cope with feelings of social anxiety or depression.

Personnel:
Noelle Ott, Undergraduate Student, Abnormal/Social Psychology, University of Maine

Noelle will serve as the principal investigator of this study. Noelle is currently an undergraduate senior in the University of Maine. Noelle has two years of research experience and has worked in and participated in several human participants projects. She has completed the required IRB training.

Jordan P. LaBouff, Ph. D., Assoc. Professor, Psychology & Honors, University of Maine Jordan will serve as the faculty sponsor for this study. Jordan received his master's degree in neuroscience and doctorate in experimental social psychology from Baylor University in Waco, Texas. Dr. LaBouff has 15 years of experience conducting surveys and managing experiments with human participants. He has completed human participants training.

Both researchers will participate in all phases of the research process, e.g, analyzing data, writing papers, presenting results.

Participant recruitment:

We will recruit at least 300 participants (who are over 18) for the study. We will attempt to recruit all participants through the Psychology Department Participant Pool. However, since the goal of the study is a profile of players of TTRPGs, we want to get as large a sample as possible, especially of TTRPG players. So we will supplement the Participant Pool recruitment by posting a survey link on social media sites, e-mailing gaming groups and personal contacts, and following up with people suggested by our participants. Please see Appendix B for Recruitment Notices

Informed Consent

The informed consent will be the first page of the survey. Before proceeding with the survey, the participant will review the informed consent. Participants will be informed that the survey is completely confidential as identifying information will be protected. After the participants have read the informed consent, they will be able to click a button that says "Yes" or "No." By clicking "Yes," they will acknowledge their consent to participate in the study (Appendix L).

Confidentiality

This survey is confidential. The survey will be collected through Qualtrics, a service that provides a secure, encrypted server and connection for participants, along with data storage solutions that meet HIPAA and FERPA standards. In order to participate in the raffle (see below), or to be contacted for future studies, participants will be invited to share their name and contact information. Only participants who opt-in by selecting "I am willing to be contacted about participating in future research" will have their contact information retained. This information will be stored separately from their responses to the survey. A keyed file will link participant identities to participant responses for the purpose of connecting with future research. The key file will be encrypted with BitLocker. We plan to retain the key indefinitely because Dr. LaBouff plans to collect additional data from these participants, potentially far in the future (e.g., 10+ years for follow-up surveys or interviews). Although we know there will be significant attrition, the potential value of these longitudinal data are worth the extra effort of maintaining a key confidentially indefinitely. Please note that we will *only* retain the contact information of participants

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who indicate they are willing to be contacted for future studies. We will delete the contact information that anyone provides who does not check the "I am willing to be contacted about participating in future research" button on the survey when raw data are deleted from Qualtrics.

Raw data will remain on the Qualtrics server under Ott's University of Maine account until data collection is complete (no later than March 31, 2022) after which it will be deleted from Qualtrics. All data and the keyed file will be maintained indefinitely in accordance with the American Psychological Association's suggested guidelines to allow verification of study findings if required. All data and the keyed file will be kept in different password-protected folders on a locked computer in a locked office. The information garnered from this study will be used in journal articles and conference presentations only in aggregate form to preserve privacy.

Risks to participants:

It is possible that some questions may make participants uncomfortable. Participants will be reminded in the informed consent form that they may skip any questions (they simply must reach the finishing page of the survey to earn credit and enter the raffle). They will also be provided with resources at the end of the survey. If a participant scores a 16 or over on the CES-D, an e-mail will be automatically sent to Dr. LaBouff via Qualtrics, and he will follow up with additional resources (see Appendix K) within 1 business day if they leave their e-mail address.

Benefits

There is no direct benefit to participants in this research, although it is hoped that the self-reflection participants engage in as a part of the research and knowledge gained from the experience is valuable. As a result of the study, society may benefit from the contribution of an increased knowledge about the social influence of Roleplaying Games in a variety of age groups. The research stands to benefit the scientific understanding of roleplaying games, depression, and anxiety, and their relationship in social group settings and perceptions of self worth and social connectedness.

Compensation

Participants who complete the survey via the Participant Pool will earn 1 credit for their participation. All participants, regardless of how they access the survey, will have the opportunity to be entered into a raffle for one of 10 prizes. Winners will be able to select a $50 cash prize or a gaming accessory (e.g., dice) of equal value. Winners will be contacted at email addresses they provide at the end of the survey. They will be asked if they prefer the cash prize or the gaming accessory. They may pick up either in person in Williams Hall, or we will send participant's prizes via Paypal or Venmo (less fees) per their request. Participants must reach the end of the survey to be compensated with credit, and to enter the raffle for the cash prize or gaming accessory.

REFERENCES

Blackmon, W. D. (1994). Dungeons and Dragons: The Use of a Fantasy Game in the Psychotherapeutic Treatment of a Young Adult. *American Journal of Psychology,* 48 (4): 624-632

Bowman, S. L., & Lieberoth, A, (2018). Psychology and role-playing games. In Zagal, José P. and Deterding, S. (eds.), Role-Playing Game Studies: Transmedia Foundations. New York: Routledge, 245-264 *(PDF) Psychology and Role-Playing Games*. Available from: https://www.researchgate.net/publication/331758159_Psychology_and_Role-Playing_Games [accessed Sep 02 2021].

Bratton, S., & Ray, D. (2000). What the research shows about play therapy. International Journal of Play Therapy, 9(1), 47-88. doi:10.1037/h0089440 Burke, K. (1961). The rhetoric of religion: Studies in logology. Boston, MA: Beacon Press

Ewalt, David M. (2014). *Of Dice and Men: The Story of Dungeons & Dragons and The People Who Play It*. Simon & Schuster. p. 36. ISBN 9781451640519.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality, 37, 504 528.*

Hughes, J. (1988). Therapy is fantasy: Roleplaying, healing and the construction of symbolic order. Retrieved from Studies About Fantasy Role-Playing Games website: http://www.rpgstudies.net/hughes/therapy_is_fantasy.html

Leary, M. R. (1983). Social anxiousness: The construct and its measurement. Journal of Personality Assessment, 47, 66-75.
Lippitt, R. (1943). The psychodrama in leadership training Sociometry, 6, 286-292.

Radloff, L. S. (1977). The CES-D scale: A self report depression scale for research in the general population. *Applied Psychological Measurements,* 1, 385-401.

Rotter, J. B., & Wickens, D. D. (1948). The consistency and generality of ratings of "social aggressiveness" made from observations of role playing situations. *Journal of Consulting Psychology, 12*(4), 234–239. https://doi.org/10.1037/h0054313

Rukavishnikova , E. (2016). Specific Psychological Characteristics of Interpersonal Relationships in Preschool Children. *Procedia - Social and Behavioral Sciences*, *223*, 118–122. https://doi.org/10.1016/j.sbspro.2016.10.159

APPENDIX G

INFORMED CONSENT

You are invited to participate in a research project being conducted by Noelle Ott, an undergraduate student in the department of psychology, and Jordan P. LaBouff, Ph.D. Associate Professor of Psychology at the University of Maine. The purpose of the research is to understand people's experiences with Tabletop Roleplaying Games. You must be at least 18 years old to participate.

What Will You Be Asked to Do?

This survey is confidential and should take about 30-45 minutes to complete. If you decide to participate, you will be asked to answer several questions about yourself, your experiences with Tabletop Games, and your mental well-being. You will be asked questions like whether and how often you play tabletop games and what role they have in your life (e.g., "One reason I play tabletop games is because it strengthens my friendships…") as well as questions about your feelings and social experiences (e.g., "I have sometimes been bothered by things that don't usually bother me") You will also be asked open-ended questions that ask you to reflect on experiences with tabletop games.

Risks

This study will ask you to answer survey questions regarding your experiences with certain emotions, such as feelings of reservation, anxiousness, fear, or loneliness. Some of the items on these scales may make you uncomfortable as they ask about depression and anxiety.

If you would like to talk through anything that was evoked by your experience in this study with a professional, there are several options for you. If you are a UMaine student, you can contact the Counseling Center in Cutler Health Building (207-581-1392). If you are not, you can find a Behavioral Health Professional at https://findtreatment.samhsa.gov. More options are available at the end of the survey.

In addition, if your responses indicate high levels of depression, we will reach out to you via e-mail (if you provide your contact information at the end of the study) with additional resources you may choose to take advantage of.

Benefits

While there are no direct benefits to you, it is hoped the self-reflection required by the questions will be valuable and enjoyable. This research will help

us better understand how different leisure activities can be associated with thoughts and feelings.

Compensation

At the end of the survey, you will be invited to share your e-mail address to enter a raffle for one of ten $50 prizes. Winners will be contacted via the email address they share and will be able to choose from a gaming accessory (e.g., dice) worth $50 or the value in cash. Raffle winners will be drawn and contacted when data collection is complete. No later than March 31, 2022.

If you are participating through the UMaine Participant Pool (Sona systems) you will receive 1 research credit for your submission of this survey when you reach the finishing page of the survey (you must reach the finishing page of the survey to earn credit). Please note you do *not* have to share your e-mail in order to earn credit. Only to be eligible for the raffle and future studies.

Confidentiality

This study is confidential. In order to participate in the raffle, or to be contacted for future studies, you will be invited to share your name and contact information. If you provide your e-mail and check the box that says, "I am willing to be contacted about participating in future research", then your identifying information will be kept so that we can contact you in the future. If you do not check that box, we will delete contact information after raffle winners are selected (no later than March 31st, 2022).

The contact information we keep for those who opt-in will be kept separately from your responses to the survey and only accessed by researchers to contact you for future studies and to link your answers across time. Raw data will remain on the Qualtrics server under Ott's University of Maine account until data collection is complete (deleted from Qualtrics no later than March 31, 2022). After that, all de-identified data and the keyed file with contact information will be maintained separately and indefinitely in accordance with the American Psychological Association's suggested guidelines to allow verification of study findings if required. All data and the contact information will be kept in separate password protected files on a locked computer in a locked office using software to provide additional protection. The information from this study will be used in journal articles and conference presentations only in aggregate form to preserve privacy.

Voluntary

Your participation in this study is voluntary. If you choose to take part in this study, you may stop at any time. In order to earn your credit and enter the raffle, you must reach the finishing page of the survey. You may skip any questions you do not wish to answer.

Contact Information

If you have any questions about this study, please contact Noelle Ott (noelle.ott@maine.edu). You may also reach the faculty advisor on this study, Jordan LaBouff (jordan.labouff@maine.edu; 207/581-2826). If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, 207/581-2657 (or e-mail umric@maine.edu).

By clicking Yes below, you indicate that you have read the above information and agree to participate.

___ YES

___ NO

APPENDIX H

RECRUITMENT NOTICES

Below are examples of Recruitment Notices that will be received by participants in different pools; University of Maine students in Psychology and Communication majors who will receive credit, and individuals who will receive an invitation via a social media platform (Twitter, Facebook, etc).

Sona Recruitment Information:

Title: Games and Social Emotions

Description: "This is a confidential survey where you will be asked to answer several questions about yourself, your thoughts, and your experiences. You will receive one credit for completing the survey. At the end of the survey, you will be given an opportunity to provide your e-mail address to participate in a raffle for one of 10 $50 prizes. The survey may take about 30-45 minutes to complete.

Here is an example of how we will reach out via an email or social media post:

Title: Research about Tabletop Games - Win $50 or some dice!

"Greetings,

I'm Noelle Ott, an undergraduate student in the department of psychology at University of Maine, and Dr. Jordan LaBouff, Ph.D., is my faculty mentor. We are conducting research to understand people's experiences with Tabletop Roleplaying Games. We were hoping you or some folks you know might be interested in participating.

Below you'll see a link to the survey, which you should feel free to share with friends. At that link, you'll see more detailed information about the project, and then a confidential survey where you will be asked to answer several questions about yourself, your thoughts, and your experiences. It may take about 30-45 minutes to complete. At the end of the survey, you can share your e-mail address to enter a raffle for one of 10 prizes ($50 cash or a gaming accessory (e.g., dice) of equal value, winner's choice).

You must be at least 18 years old to participate.

Please click on the link below to learn more about the study and to take the survey (Qualtrics survey link).

If you have any questions, please feel free to contact me at noelle.ott@maine.edu"

FOLLOW UP EMAIL

Any participant who scores a 16 or greater on the CES-D will trigger an automatic e-mail to Dr. LaBouff. Within one working day, Dr. LaBouff will reach out to the participant (if they provided contact information), with the following note:

Hello,

I am Dr. LaBouff at the UMaine Psychology Department, and I'm supervising the Games and Social Emotions study you completed recently. From your answers to the questionnaires, you seemed to be feeling quite down. You were provided with some information about counseling services, but I wanted to follow up and encourage you to contact those services or your primary care provider.

If you are a UMaine student, The Counseling Center in the Cutler Health Building is free (207-581-1392; http://www.umaine.edu/counseling/ - Weekdays 9:00 am-4:00 pm). The Psychological Services Center is also on campus (but has costs - 207-581-2034 - https://umaine.edu/psychology/psychological-services-center/). Community Health and Counseling Services is at 42 Cedar in Bangor (but also has costs that are the client's/insurance responsibility - 207-947-0366 - http://www.chcs-me.org/ - Weekdays 8:00 am-5:00 pm).

If you are not a UMaine student or in Bangor, Maine, you can find a Behavioral Health Services Provider at https://findtreatment.samhsa.gov

Best,

Dr. LaBouff

APPENDIX J

TABLETOP ROLEPLAYING GAMES THESIS SURVEY

Informed Consent (see Appendix L)
- Yes - I understand and agree to participate (4)
- No - I prefer not to participate (5)

What is your gender identity? (Select one):
- Male (1)
- Female (2)
- Non-binary / Genderqueer (3)
- Additional Gender Category, please specify (4)
  _____
- Choose not to disclose (5)

- -

What sex were you assigned at birth on your original birth certificate? (Select one):
- Male (1)
- Female (2)
- Other (3)
- Choose not to disclose (4)

- -

*

What is your age (in years)?

_____

What is your ethnicity?
- White/Caucasian (1)
- Asian/Pacific Islander (2)
- Native American (3)
- Hispanic (4)
- Black/African American (5)
- Other (6) _____

Please indicate the extent to which you consider yourself politically liberal or conservative
- Extremely Conservative (1)
- Conservative (2)
- Slightly Conservative (3)
- Neutral (4)
- Slightly Liberal (5)
- Liberal (6)
- Extremely Liberal (7)

Think of this slider as representing where people stand in your country of residence. On the TOP of the scale (10) are people who are the best off - those with most money, education, and most respected jobs. At the BOTTOM (1) are the people who are the worst off- those with the least money, education, and least respected of jobs or no job.

Where would you place your family as you were growing up on this scale?

Select the number that represents your family.
- 10 (1)
- 9 (2)
- 8 (3)
- 7 (4)
- 6 (5)
- 5 (6)

- 4 (7)
- 3 (8)
- 2 (9)
- 1 (10)

What is your sexual orientation?
- Heterosexual (1)
- Homosexual (2)
- Bisexual (3)
- Other (please specify) (4) _____

To what extent do you consider yourself a RELIGIOUS person?
- 1 Not At All (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 Very Much (7)

End of Block: Demographics

Start of Block: ParticipatedinTTRPGs

This study involves Table Top Roleplaying Games (like Dungeons and Dragons).

For the purpose of these questions, Table Top Roleplaying Games are collaborative storytelling games where players imagine themselves as different characters in a fantasy world together, describe what they want their characters to do, and apply game rules and dice rolls to determine the outcomes of their characters' actions.

I am familiar with Tabletop Roleplaying Games (like Dungeons and Dragons)
- Not familiar at all (1)

- Slightly familiar (2)
- Moderately familiar (3)
- Very familiar (4)
- Extremely familiar (5)

How many times have you played a Tabletop Roleplaying Game?
- Never (7)
- Once (8)
- Less than 10 times (9)
- 10-50 times (10)
- More than 50 times (13)

Why did you choose to play a Tabletop Roleplaying Game? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

End of Block: ParticipatedinTTRPGs

Start of Block: FrequencyofPlay-SC

How often do you currently play a Tabletop Roleplaying Game?

- I do not currently play (1)
- Rarely (less than once a month) (2)
- Sometimes (once or twice a month) (3)
- Regularly (weekly or nearly weekly) (4)
- Frequently (more than once a week) (5)

How often would you LIKE to play Tabletop Roleplaying Games?
- Not at all (1)
- Rarely (less than once a month) (2)
- Sometimes (once or twice a month) (3)
- Regularly (weekly or nearly weekly) (4)
- Frequently (more than once a week) (5)

End of Block: FrequencyofPlay-SC

Start of Block: I Like Playing TTRPGs

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

I enjoy playing Tabletop Roleplaying Games
- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

End of Block: I Like Playing TTRPGs

Start of Block: TTRPG Play b/c... - Sc

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

One reason I play Table Top Roleplaying Games is because:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
It strengthens my friendships with people I play with (1)	•	•	•	•	•	•	•
It gives me a chance to compete (2)	•	•	•	•	•	•	•
It gives me a chance to express my creativity (3)	•	•	•	•	•	•	•
It gives me a chance to think strategically (4)	•	•	•	•	•	•	•
It helps me make friends with	•	•	•	•	•	•	•

people outside of my gaming group (5)

It allows me to feel free to fully express myself (6)

· · · · · · ·

It allows me to learn about myself (7)

· · · · · · ·

It makes me more comfortable interacting with strangers (9)

· · · · · · ·

Other (please describe a reason you play) (8)

· · · · · · ·

If you see benefits to playing Table Top Roleplaying Games, what are they? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

Playing Tabletop Roleplaying Games benefits my mental well-being
- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

How does playing Table Top Roleplaying Games impact your mental health? (Please respond with at least a few sentences in the section below).

_____

_____

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_____

Start of Block: Relationshipw/RPGCharacter-Sc

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

For the statements below, indicate the extent to which each statement describes your relationship with the characters you prefer to play

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I prefer to play characters that are very much like me (1)	•	•	•	•	•	•	•
I prefer to play characters that I want to be like (2)	•	•	•	•	•	•	•
I prefer	•	•	•	•	•	•	•

to play
charact
ers that
are
very
differe
nt from
myself
(3)

W
hen I
play, I
try to
think
like my
charact
er
would
think
(4)

•   •   •   •   •   •   •

Display This Question:
If How many times have you played a Tabletop Roleplaying Game? = Once
Or How many times have you played a Tabletop Roleplaying Game? = Less than 10 times
Or How many times have you played a Tabletop Roleplaying Game? = 10-50 times
Or How many times have you played a Tabletop Roleplaying Game? = More than 50 times

When you think about the characters you most often choose to play, what are their personality traits? Are they like you or unlike you? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

What has playing Tabletop Roleplaying Games taught you about
yourself? How? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

If they do, how do Tabletop Roleplaying games influence your social
relationships? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

Here are a number of personality traits that may or may not apply to you. Please click the button for each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Extraverted, enthusiastic (1)	•	•	•	•	•	•	•
Critical, quarrelsome (2)	•	•	•	•	•	•	•
Dependable, self-disciplined (3)	•	•	•	•	•	•	•
Anxious, easily upset (4)	•	•	•	•	•	•	•
Open to new experiences, complex (5)	•	•	•	•	•	•	•
Reserved, quiet (6)	•	•	•	•	•	•	•
Sympathetic, warm (7)	•	•	•	•	•	•	•
Disorganized, careless (8)	•	•	•	•	•	•	•
Calm, emotionally stable (9)	•	•	•	•	•	•	•
Conventional,	•	•	•	•	•	•	•

uncreative
(10)

For the statements below, indicate how often you experienced the following feelings

	Rarely or none of the time (less than 1 day) (1)	Some or a little of the time (1-2 days) (2)	Occasionally or a moderate amount of time (3-4 days) (3)	Most or all of the time (5-7 days) (4)
I was bothered by things that usually don't bother me (1)	•	•	•	•
I did not feel like eating; my appetite was poor (2)	•	•	•	•
I felt that I could not shake off the blues even with help from my family or friends (3)	•	•	•	•
I felt I was just as good as other people (4)	•	•	•	•
I had trouble keeping my mind on what I was doing (5)	•	•	•	•
I felt depressed (6)	•	•	•	•
I felt that everything I did was an effort (7)	•	•	•	•
I felt hopeful for the future (8)	•	•	•	•

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I thought my life had been a failure (9)	•	•	•	•
I felt fearful (10)	•	•	•	•
My sleep was restless (11)	•	•	•	•
I was happy (12)	•	•	•	•
I talked less than usual (13)	•	•	•	•
I felt lonely (14)	•	•	•	•
People were unfriendly (15)	•	•	•	•
I enjoyed life (16)	•	•	•	•
I had crying spells (17)	•	•	•	•
I felt sad (18)	•	•	•	•
I felt that people dislike me (19)	•	•	•	•
I could not get "going" (20)	•	•	•	•

Indicate how characteristic each of the following statements is of you:

	1 = Not at all characteristic of me (1)	2 = Slightly characteristic of me (2)	3 = Moderately characteristic of me (3)	4 = Very characteristic of me (4)	5 = Extremely characteristic of me (5)
I often feel nervous even	•	•	•	•	•

in casual get-togethers (1)					
I usually feel comfortable when I'm in a group of people I don't know (2)	•	•	•	•	•
I am usually at ease when speaking to a member of the other sex (3)	•	•	•	•	•
I get nervous when I must talk to a teacher or a boss (4)	•	•	•	•	•
Parties often make me feel anxious and comfortable (5)	•	•	•	•	•
I am probably less shy in social interactions than most people (6)	•	•	•	•	•
I sometimes feel tense when talking to people of my own sex if I don't know them very well (7)	•	•	•	•	•
I would be nervous if I was being interviewed for a job (8)	•	•	•	•	•

I wish I had more confidence in social situations (9)	•	•	•	•	•
I seldom feel anxious in social situations (10)	•	•	•	•	•
In general, I am a shy person (11)	•	•	•	•	•
I often feel nervous when talking to an attractive member of the opposite sex (12)	•	•	•	•	•
I often feel nervous when calling someone I don't know very well on the telephone (13)	•	•	•	•	•
I get nervous when I speak to someone in a position of authority (14)	•	•	•	•	•
I usually feel relaxed around other people, even people who are quite	•	•	•	•	•

different
from me
(15)

For the statement below, rank how much you agree with this statement on a 0-7 scale

	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	6 (7)	7 (8)
Social activities (ex: sports, hiking, club activities) help me deal with feelings of social anxiety (1)	●	●	●	●	●	●	●	●

For the statement below, rank how much you agree with this statement on a 0-7 scale

	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	6 (7)	7 (8)
Social activities (ex: sports, club activities, hiking, etc.) help me deal	●	●	●	●	●	●	●	●

with feelings of depression (1)	

Other than Tabletop Roleplaying Games, what activities do you partake in to cope with any social anxiety or depression you experience? (Please respond with at least a few sentences in the section below).

_____

_____

_____

_____

_____

✳

Please enter your e-mail address below and indicate if you would like to participate in the raffle and if you would like to be contacted for future research on this topic.

Please note: If you check, "I am willing to be contacted about participating in future research" we will retain your contact information indefinitely - but it will be kept separate from your data and only accessed to contact you or connect your answers across time. If you do **not** select that box and only provide your information for the raffle, we will delete your e-mail address no later than March 31st, 2022. Because we hope to contact people far in the future to invite them to participate in future studies,

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_____

Select as many of the boxes as you wish to participate in:
- I would like to enter the raffle (1)
- I am willing to be contacted about participating in future research (2)

End of Block: Raffl/FutureResearchNote

Counseling Services

ON-CAMPUS RESOURCES
Available for UMaine Faculty, Staff, and Students

Counseling Center **Cutler Health Building (Gannet Hall side)** (FREE to UMaine students)	**207-581-1392** http://www.umaine.edu/counseling/	Weekdays 8:00 am-4:30 pm After business hours, call UMaine Police, 581-4040 or 911
Psychological Services Center **330 Corbett Hall** (Sliding fee scale; costs are your responsibility)	**207-581-2034** https://umaine.edu/psychology/psychological-services-center/	Weekdays 8:00 am – 4:30 pm

COMMUNITY RESOURCES
Available to Anyone

Community Health & Counseling Services **42 Cedar Street** **Bangor, ME 04401** (Any costs are your responsibility)	**207-947-0366** http://www.chcs-me.org/	Weekdays 8:00 am-5:00 pm
Maine Crisis Hotline (Any costs are your responsibility)	**1-888-568-1112** https://heretohelpmaine.com/	7 days/week 24 hours
Psychological Services Center **330 Corbett Hall** (Sliding fee scale; costs are your responsibility)	**207-581-2034** https://umaine.edu/psychology/psychological-services-center/	Weekdays 8:00 am – 4:30 pm
Contact Your Primary Care Provider (Any costs are your responsibility)		

NATIONAL RESOURCES

Behavioral Health Services Locator https://findtreatment.samhsa.gov/

National Suicide Prevention Lifeline, Toll-Free, 24-hour Hotline, 1-800-273-TALK (1-800-273-8255)

Please click through to the end of the survey to complete it and earn credit if you are participating through Sona

AUTHOR'S BIOGRAPHY

Noelle B. Ott was born in Boise, Idaho on June 22nd, 1999. She was raised in Maine and Massachusetts and lived in Dublin, Ireland for several years in middle and high school. She graduated from Nipmuc High School in 2018 and attended her first semester at the University of Maine in August of the same year. Noelle has played Dungeons & Dragons since the beginning of her freshman year and is interested to see the progression of its use in therapy. With further research in this field, she hopes to incorporate tabletop roleplaying activities into her intended career, depending on the age group that she counsels. She is majoring in Psychology with a minor in Media Studies and intends to pursue a career as a therapist in private practice. Noelle will pursue a Master's degree in the Fall of 2023. She has not yet determined where she will attend graduate school.