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Online Friendships and the Bird's Nest Drawing in the Age of the Internet

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This thesis, written under the direction of the candidate's thesis advisor and approved by the program chair, has been presented to and accepted by the Department of Art Therapy, at Dominican University of California, in partial fulfillment of the requirements for the degree of Master of Arts in Marriage and Family Therapy.

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Online Friendships and the Bird's Nest Drawing in the Age of the Internet

By

Ian Wong

A culminating thesis, submitted to the faculty of Dominican University of California in partial fulfillment of the requirements for the degree of Master of Arts in Marriage and Family Therapy

Dominican University of California

San Rafael, CA

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Abstract

This study was a qualitative exploration of friendships facilitated through the internet and online video games. The goal was to investigate how online friendships compare to in-person friendships in terms of quality. Three English-speaking participants who played an online video game and had an online friendship provided unique case studies describing the differences between an online and in-person friendship. The Bird Nest Drawing art assessment by Kaiser (1996; 2016) revealed themes of attachment security which helped explain the variations in the friendships. The findings of this study opened the topic of online friendships for further exploration in the field of art therapy, both in research and in a therapy setting.

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This thesis is dedicated to my parents, Stanley Wong, and Margaret Liu, and the rest of my family who have always been supportive of my interests and educational direction. I also dedicate this to my best friend since middle school, Timothy Do, my group of in-person friends, and my online friends who are a big part of my everyday life and wellbeing.

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Chapter I: Introduction

Problem Statement

Humans are social beings that rely on various interpersonal connections for cooperation, survival, and general wellbeing (Bowlby, 1982). Over the course of time, human interaction has evolved far beyond conventional face-to-face (FtF) forms of communication. Technology such as telephones, email, text messages, video chat, and social media have provided people with numerous means of interpersonal connection in the modern era (Kumar & Epley, 2021). Most contemporary communication technologies require the Internet to function. While the Internet is currently a ubiquitous part of everyday life, it came with the potential to negatively impact society.

During the early days of the Internet there was a societal concern in the United States that the Internet would cause a generational shift away from social activity (Kraut et al., 1998). However, people often use the Internet for socializing and staying connected with others. One study found that 22% of Internet users had online friendships (Wang & Wellman, 2010). Today, a widely popular way people connect with others over the Internet is through online video games. According to the Center for the Digital Future (2018), Internet users spend an average of 22.5 hours per week and 50% of Internet users go online to play video games at least weekly. In another study, 75% of gamers said they had “good friends” in their gaming community (Cole & Griffiths, 2007, as cited in Kowert & Oldmeadow, 2013). A few studies have also challenged the notion that online friendships are less meaningful and are displacing in-person friendships (Domahidi et al., 2018). Recently in 2020 during the COVID-19 pandemic and mandated social isolation, the time people spent playing online video games heavily increased as they were useful for social connection when FtF interaction was not an option (Sallie et al., 2021).

Online friendship is not a new concept, however there is little research around how people experience them in comparison to traditional in-person friendships. On the Internet people can develop and maintain friendships in a completely digital environment without ever meeting their friend in person, knowing what they look like, or even knowing their real name. Regardless of the level of anonymity a person chooses to keep, an online friendship may still grow beyond being a casual acquaintanceship. The implications these types of friendships have on the field of psychology is not yet thoroughly understood.

Several past studies used the massively multiplayer online roleplaying game (MMORPG) genre as a point of research on social interactions between players in online video games. MMORPG is an online video game genre that generally has a strong social aspect by design. The types of player interaction can vary from game to game, creating a wide variety of experiences for people to share. The MMORPG player demographic is also very diverse, making it a suitable area for psychological research. According to Yee (n.d.), the average age of an MMORPG player is around 26 years old. However, the wide-ranging demographic includes “high-school students, college students, early professionals, middle-aged home-makers, as well as retirees” (Yee, n.d., para. 1). There are also other many other online video game genres such as first-person shooters (FPS) that researchers have not studied as extensively in terms of positive social interaction. While not all genres encourage or provide the same level of socializing as MMORPGs, players can bond over a game they are both invested in and form a friendship outside of it.

People who first meet in-game may decide to communicate outside of the game using online messaging and voice chat platforms such as Discord or Skype. Some people also meet other players through online video game communities on social media platforms such as

Facebook, Reddit, and Twitter. These are all common channels through which players evolve and maintain their friendship beyond the context of the game.

Most recently, Discord has been a massively popular platform with a rapidly growing userbase. It is a free communication program for computers and smartphones that was released in 2015 and currently has 150 million active monthly users (Discord, n.d.). The creators of Discord intended it to be a platform that “[encourages] talking, [helps] form memories, and [recreates] the feeling of togetherness all found through gaming” (Discord, n.d., Prologue section). They designed it with online video game players in mind, but any user can create or join “servers” which are private or public chatrooms where people can socialize using text and image-based chat, voice chat, or video and voice chat. Servers are useful for helping people connect over specific common interests, including different online video games. Users can also set up private servers for closed groups of friends to stay connected with each other.

Attachment Theory and Art Therapy

Although the Internet has become a widely popular means of social interaction, there is not much research on how online and in-person social relationships function differently, as studies usually focused on in-person relationships (Buote et al., 2009; Coulson et al., 2018). Buote et al. (2009) saw the importance of examining how the differences between online and in-person friendships relate to different attachment styles. In Bowlby’s (1982) attachment theory, children develop attachment, or proximity-seeking behaviors with a preferred individual such as one’s mother to gain safety from dangers in their environment. A child’s relationship with the attachment figure influences how they understand the world and interact with other people throughout their life.

A person's attachment style may affect how they perceive interactions with friends (Grabill & Kerns, 2000). Online communication differs from in-person communication in that there are no visual cues such as facial expression or body language, except in video chat. In text-based messaging, people may not always reply right away. The dynamics of exclusively online friendships can influence a person's perception of their interactions. For example, if a friend does not give immediate feedback verbally or behaviorally, it could harm the relationship (Buote et al., 2009). However, a person with an insecure attachment style might have an easier time initiating friendships online since they lack the same pressures of in-person friendships. Without in-person nonverbal cues, people are free from judgements based upon physical appearance. (Kowert & Oldmeadow, 2013). Text-based chat allows people to creatively communicate in ways that are not possible in-person, like using emojis. Online friendships can even help people with insecure attachment practice social skills.

People with psychological issues related to attachment can benefit from art therapy. Art therapy is a mental health profession that can help individuals improve their social skills and promote emotional resilience through artmaking and psychotherapy (American Art Therapy Association, n.d.-a). Assessments in art therapy provide art therapists with useful information on a person's unconscious psychological content which helps them understand their client and form treatment goals (American Art Therapy Association, n.d.-b). It is important that art therapy research creates an understanding of how effective art assessments and interventions are in addressing different issues with different populations.

Purpose

This present study aimed to create an understanding of how the significance of online friendships compare to in-person friendships in terms of quality. Through a qualitative approach

and theoretical lens of attachment theory, the student researcher explored the social relationships of English-speaking adults who play online video games and have an online friend. The study utilized the Bird's Nest Drawing (BND) art therapy assessment to reveal themes of attachment through image-making and provide insight into the different types of friendships. It also helped explore the use of art therapy to address issues stemming from exclusively online interpersonal relationships.

Chapter II: Literature Review

Friendship

Throughout history, philosophers and researchers have contemplated the different aspects of friendship (Petricini, 2022). Friendships are important for people throughout different stages of life, as they provide crucial developmental and social support (Amichai-Hamburger, 2013; Petricini, 2022). They also provide benefits such as “companionship, stimulation, physical support, ego support, social comparison, and intimacy and affection” (Ginsberg et al., 1986, as cited in Petricini, 2022, p. 4). Most of the information and understanding of friendships is based on traditional face-to-face friendships (Amichai-Hamburger, 2013). However, the prevalence of the Internet in the current era transformed the way people interact with one another, and it is necessary to continue investigating the nature of friendships as it evolves. In a study on online friendships, Munn and Weijers (2021) defined friendship as “a relationship constituted by a clear majority of positive interactions between parties with positive intentions toward each other” (p. 2). This definition was inclusive of online friendships that lack physical interaction, given that they do not lead to more negative interactions or intentions. Though people are more aware and accepting of online friendships today, there has been a history of cynicism around the benefits of the Internet and online social activity.

Fears of Social Withdrawal During the Rise of the Internet

The Internet has grown to be an ever-present part of everyday modern life. Between the years 2000 and 2018, the average hours per week people at home spent on the Internet increased by 439% (Center for the Digital Future, 2018). Since the early days of the Internet, there have been fears in the United States that a rise in Internet usage led to a decline in social connectivity between Americans (Wang & Wellman, 2010). According to Wang and Wellman (2010), this

concern was widespread in the media, starting with an article by Kraut et al. (1998). The article argued that the Internet as a social technology is paradoxical in that it is used for communication but is also “associated with declines in social involvement and the psychological well-being that goes with social involvement” (Kraut et al., 1998, p. 1029).

The media has highlighted this public concern despite there being little evidence to support it, as U.S. national surveys and in-depth case studies showed that computer-mediated communication (CMC) created an increase in overall communication between friends and family (Wang & Wellman, 2010). Kraut et al. (1998) also acknowledged that “a major use of the Internet is explicitly social” (p. 1029), contrary to their claim that the Internet has led to social withdrawal. The steady increase of Internet usage during the early 2000s led to people having more friends than ever before.

The Rise of Online Friendships

A study by Wang and Wellman (2010) investigated the connection between Internet use and friendship network sizes. The researchers examined the growth trend of online friendships of adult Americans from age 25 to 74 between the years 2002 and 2007, which was when “Internet use expanded and diversified” (Wang & Wellman, 2010, p. 1152). They categorized their sample based on Internet usage. Nonusers did not spend any time on the Internet, light users spent 1 hour or less per day on average, moderate users spent 1 to 3 hours per day, and heavy users spent over 3 hours per day. Over the course of the study, there was an increase of heavy internet users from 10% to 21%. The data also included the sizes of each person’s friendship network, including in-person friendships, online friendships, and online friendships that migrated to in-person.

Wang and Wellman (2010) stated that “almost everyone has social ties whom they contact on a regular basis” (p. 1162). They found that there was a statistically significant increase

in the average number of friends adult Americans had between the years 2002 and 2007. However, there were no statistically significant differences between the increases of each friendship type. The average number of each friendship type also consistently increased across Internet nonusers, light users, moderate users, and heavy users without any statistically significant differences. Although people's friendship network sizes increased with the amount of time spent on the Internet both in 2002 and 2007, heavy Internet users did not have fewer in-person friends than the nonusers. The researchers concluded that the Internet did not decrease people's social activity, but instead expanded it. However, they also posed the question of whether heavy Internet usage causes an increase in friendships or vice-versa. Other researchers such as Shabahang et al. (2022) have also expressed concerns that excessive Internet usage can be problematic and that it correlates with a person's preference for online friendships. Despite these concerns, there has been research that discussed the values of these less understood friendships.

The Legitimacy of Online Friendships

In recent years, more researchers have begun to recognize online friendships as a legitimate type of friendship that are important for many people. Shabahang et al. (2022) argued that online friendship can be a useful alternative to in-person friendship for those who have a high fear of intimacy and feel vulnerable when face-to-face with others. In some cases, online friends may eventually become comfortable enough to meet up in-person if possible. Wang and Wellman (2010) found that 15% of Internet users had online friends who they later had in-person contact with. With the Internet being a consistently prevalent part of everyday life, researchers have been able to work towards gaining a deeper understanding of the dynamics of online friendships.

How Online Friendships Form

On the Internet, people have the option of choosing how much of their personal identity they want to present when interacting with others. Status information such as age, race, and social class are harder to detect online (Chan & Cheng, 2004). Other social cues, such as physical appearance and nonverbal information can also be completely hidden. These factors when present can influence how someone perceives another person and whether they would want to interact with them.

The principle of homophily describes how people are more likely to interact with others who share similar qualities and less likely to connect with those who are dissimilar (McPherson et al., 2001). People commonly establish homophily in their social networks around characteristics such as racial identity, age, gender, religion, and education. With CMC, people can bypass the effect of homophily to a degree. People who maintain anonymity online provide less information for others to judge them on when deciding whether to interact with them or ignore them. However, people with a public social media profile or other non-anonymous online presence may have their private lives integrated with their identity on the Internet. Social media provides a way for people to easily access pieces of information such as a person's name, age, gender, interests, photos, and videos, often without requiring permission. Some people also use social media to learn about others and connect with them prior to meeting in person.

Standlee (2019) studied how college students use social media to learn about potential in-person friends. The researcher interviewed 52 participants who described how they viewed social media profiles to gain a quick understanding of a person's social and political attitudes. This study showed that people filter their social networks to find friends who they are socially compatible with. Filtering creates homogeneous environments where people quickly dismiss

those who do not share their social or political views, eliminating the possibility of a friendship developing. However, filtering can have a positive effect of helping people easily identify and form friendships with those who share common interests and values. Once the initial connection between people occurs, there is a potential for a friendship to form.

Online and In-Person Friendship Development Differences

Chan and Cheng (2004) examined the differences between online and in-person friendships at different stages of development. They defined online friendships as friendships that developed through computer-mediated communication (CMC) in online social environments and referred to traditional in-person interaction as face-to-face (FtF). The researchers had a sample of 162 Hong Kong residents who had friendships that were completely online. They asked the participants to complete a friendship quality questionnaire that asked about an online and in-person friendship that shared a similar duration of development. There were 18 items on the questionnaire, each with a seven-point scale ranging from *strongly disagree* at 1 to *strongly agree* at 7.

During the first year of friendship development, the quality of in-person and online friendships diverged from each other (Chan & Cheng, 2004). However, friendships that lasted over a year began to have converging levels of quality. Online friendships were seen to develop quicker after about six months to a year of development, leading to minimal differences in quality between online and in-person friendships. The slow initial development of online friendships can lead people to perceive the relationship as “too temporary to be worth exerting significant effort to develop and maintain” (Chan & Cheng, 2004, p. 317).

The results of this study suggested that online and in-person friendships develop differently but can reach a similar level of quality over time. However, one of the limitations of

the study was that the researchers did not have control over what forms of communication the participants used. Chan and Cheng (2004) acknowledged that it was possible some participants began using FtF interaction with their online friends, which could explain the rise in online friendship development. This study was also generalized for a Chinese population, as the participants were all from Hong Kong and the questionnaire was in Chinese. Data from other studies may be useful to help explaining why online friendships develop differently from in-person friendships.

The Pros and Cons of Computer-Mediated Communication (CMC)

CMC has transformed the way people communicate with each other in the modern world and made online friendships possible. With CMC, people can send and receive messages within seconds from any location in the world that has Internet access. Another benefit is that it allows individuals to “optimize self-presentation by selectively posting information or editing photos and text to enhance social desirability” (Shabahang et al., 2022, p. 130). While CMC enables fast, long-distance communication, text-based CMC is asynchronous due to the time it takes to type a message. Delays can also happen if a person does not read a received message or respond to it immediately. These factors provide plenty of time for strategic “planning, editing, and self-censorship” which can be appealing for those who have interpersonal fears (Shabahang et al., 2022, p. 130). A major drawback of CMC, however, is the increased risk of miscommunication.

Miscommunication can occur between people at any time when a person takes the misinterprets a message, or misses it entirely (Holtgraves, 2021). When compared to FtF communication, CMC has a limited amount of sensory information involved. CMC lacks smell, touch, and direct bodily interaction (Paradisi et al., 2021). Visual information is also restricted to a two-dimensional space on a digital screen. Voice and video chat modalities both allow for the

transmission of auditory information. However, video chat is the only CMC modality in which people can see facial gestures and body language. The limitation of sensory information in most forms of CMC negatively impacts the communicative process and increases the chances for miscommunication to occur.

In one study, Holtgraves (2021) created an experiment to analyze the types and patterns of miscommunication that can occur between people using CMC. In the experiment, one set of participants created text messages to perform specific speech acts, such as criticizing, complimenting, and offering. These participants used a 7-point scale to rate their level of confidence that the intended speech act would be accurately interpreted. The second set of participants read each message and interpreted the speech act before rating the level of confidence they had in their interpretation on a 7-point scale. The results of this study suggested that people using CMC are significantly more confident that the speech act they perform would be correctly interpreted than they are confident in accurately interpreting the speech act of a received message. Numerous factors that are unique to CMC may play a role in the occurrence of these misunderstandings.

Another study by Kelly and Miller-Ott (2018) explored the emerging themes of miscommunication in CMC. The researchers examined the text messages of 295 participants. Each participant provided an example of a text message conversation they had with a friend or partner where miscommunication occurred. They also included “descriptions of why the conversations started, and explanations of why they were examples of miscommunication” (Kelly & Miller-Ott, 2018, p. 270). After analyzing the text messages and participant’s explanations, the researchers found themes of referential and affective miscommunication. Referential miscommunication occurred when people in the texting conversation used a word or

phrase that they did not mutually understand. People generally keep text messages brief so they can communicate quickly. This increases the chance for referential miscommunication, as it reduces the amount of contextual information, potentially making the message unclear or ambiguous. Affective miscommunication was related to people misinterpreting tone in text messages. Kelly and Miller-Ott (2018) noted that people tended to mistakenly perceive negative tones such as anger, particularly during attempts at humor or sarcasm. In the second part of the analysis, the researchers focused on finding common themes across the participants' reported miscommunications.

The participant explanations of their miscommunication examples showed four major themes which the researchers called "interweaving of texting and other activities, absence of nonverbal cues, use of acronyms and punctuation, and technical features and problems" (Kelly & Miller-Ott, 2018, p. 273). If a person is engaged in an activity while texting, they may either send very brief replies to save time or be too preoccupied to respond in a timely manner. Since the individuals in the conversations were not physically present with each other, neither party was aware of the other's multitasking. Those scenarios led to people believing the other person was uninterested in the conversation or that there was an interpersonal conflict between them.

Another common issue that came up was people misinterpreted the tone in text messages as negative (Kelly & Miller-Ott, 2018). Participants reported how they or their communication partner would attribute a tone to the message since they could not hear the other person speak the words. There were no nonverbal cues to help with tone interpretation and many participants felt that these miscommunications would be less likely to occur when talking face-to-face.

The last two themes of miscommunication in this study stemmed from uses or accidental misuse of text and were unique to CMC (Kelly & Miller-Ott, 2018). One theme was regarding

the use of acronyms and punctuation. Numerous participants described how short acronyms and exclamation points altered the connotation of a message. A common example was the use of “k” to represent “ok” or “okay.” Miscommunications rose from people perceiving shorter acronyms as angry. People’s differences in texting style also contributed to misunderstandings. Some usually added exclamation points at the end of their messages, but when they did not, the other person thought they were angry. In another case, one person saw excessive exclamation points as expressing urgency.

The final theme discussed in the study was technical features and problems (Kelly & Miller-Ott, 2018). Unlike FtF interaction, CMC has risks of technical issues such as “typing too quickly, autocorrect inserting the wrong word, and phones not working correctly” (Kelly & Miller-Ott, 2018, p.275). When a person types too quickly, they can easily make a typo that completely changes the message. The autocorrect feature on a phone also sometimes replaces a word with an unintended one without the sender realizing. Some technical issues are harder to detect due to phones not displaying the full content of a text message for both conversation partners. A specific example in the study was when one participant had an iPhone but could not see their friend’s emojis because they had an Android. This made it appear that the friend was only responding with question marks.

One of the limitations of the study was that the participants were a female majority. There were 212 participants who identified as women, 82 who identified as men, and 1 who declined to report their sex (Kelly & Miller-Ott, 2018). Another limitation was that the study focused on miscommunications specifically in text messaging. The data could not be generalized for non-text-based forms of CMC. Although there are many factors in CMC that increase the risks of miscommunication compared to FtF interaction, CMC may also encourage people to elaborate

on their messages, which can improve the effects of social support (Rains et al., 2016). CMC remains a valuable tool for having meaningful and intimate connections with other people.

Importance of CMC in Relationships

A study by Sullivan et al. (2020) examined how CMC affected feelings of closeness and relationship satisfaction in dating relationships, while also considering the participants' attitudes around CMC. The researchers recruited 128 psychology students who were in dating relationships. The participant ages ranged from age 17 to 21 and the length of the relationships ranged from 1 month to 7 years. At the start of the study, each participant filled out a series of questionnaires that measured relationship closeness, relationship satisfaction, time spent communicating online, and importance of online communication. The researchers used random assignment to place the participants in an experimental or control group. For 48 hours, the experimental group were not allowed to use CMC with their dating partners while the control group were allowed to continue communication as normal. In this study, CMC included "texting, personal messaging, posting on partners' social network sites, etc." (Sullivan et al., 2020, p. 2412). After this stage was complete, every participant filled out the same questionnaires again. The experimental group answered additional questions about compliance and their experience with CMC restriction.

The researchers found that cross-sectionally, the time participants spent communicating online did not have a strong association with closeness or relationship satisfaction (Sullivan et al., 2020). There was also a negative association between the importance of online communication and both closeness and satisfaction. However, when the researchers experimentally restricted participants from using CMC, they observed a negative impact on closeness and satisfaction for participants who "considered online communication to be

relatively important” (Sullivan et al., 2020, pp. 2415–2416). This suggested that people who value online communication are likely to benefit from it in terms of relationship satisfaction and feelings of closeness. While the study was limited to participants who were in a relationship, this finding was consistent with the idea that people who prefer CMC particularly benefit from it (Shabahang et al., 2022). Around this time, other studies also focused on the rapidly growing population of online video game players to understand how different forms of CMC play a crucial role in online friendships.

Social Connection Through Online Video Games

One of the most popular social activities on the Internet is playing online video games. Through online video games, players can connect with a vast range of other individuals in virtual spaces while having minimal social boundaries “across age, sex, language, or location” (Perry et al., 2018, p. 202). In 2018, the Center for the Digital Future found that 50 percent of Americans use the Internet for playing online video games at least weekly. This included individuals who reported playing several times a day, daily, or weekly. Over the past few years, the socially isolating impact of a global pandemic amplified the value of online video games in facilitating both casual social connections and friendships over the Internet.

Increased Online Video Game Activity During COVID-19

In 2020, the COVID-19 pandemic led to many governments around the world imposing a period of self-isolation which led to people heavily relying on the Internet for social connection and entertainment (Sallie et al., 2021). Sallie et al. (2021) researched the effects social isolation during COVID-19 had on Internet usage. They had 1,344 adult participants from 80 countries, although most were from the United States and United Kingdom. The researchers created an online survey asking the participants how many hours per week they spent on different online

activities and what their affect was before and during the mandated lockdown. They also assessed for various stressors related to the pandemic. The results showed a 63% overall increase in time spent in online video games that was heavily attributed to younger and male participants. High amount of time spent on online video games during the pandemic was “associated with psychological factors such as greater depression, anxiety, and mood-based impulsivity” (Sallie et al., 2021, p. 4).

The findings of this study had both optimistic and cautionary implications around the effects of online video games. Sallie et al. (2021) acknowledged that online video games may have provided “relaxing escapist, or highly stimulating virtual experiences” (p. 6) as substitutes for FtF interactions that were less accessible during the pandemic. However, they were also concerned that some people may have a higher chance of developing pathological behavior of relying on playing online video games to cope with stress. The researchers emphasized the importance of recognizing when emotional regulation interventions are necessary to avoid or reduce problematic Internet use. Though other researchers have shared similar concerns, there have also been numerous studies that explored the beneficial social elements of online video games.

Studies on Massively Multiplayer Online Roleplaying Games (MMORPGs)

Studies related to online video games and interaction commonly use people who play Massively Multiplayer Online Roleplaying Game (MMORPG) as the sample group. MMORPGs tend to promote social interaction, making it a video game genre that can give insight into online interpersonal relationships. The virtual worlds in many of these games are intentionally designed to incentivize teamwork (Boyd, 2006). Activities in MMORPGs include exploration and safety-seeking with groups of players (Coulson et al., 2018). Minimal social interaction will allow

players to work together to accomplish objectives (Kowert & Oldmeadow, 2013). Although socializing is not required for enjoying the game, the player's immersion in the virtual world and interactivity lead to social relationships developing (Coulson et al., 2018).

Many MMORPGs have a variety of ways to communicate in-game such as text-based chat, player-controlled interactions between avatars in a virtual space, and emotive character animations. Some players will communicate with each other beyond the context of the game. One of the ways people form social bonds in MMORPGs is by joining a guild, a group of members who participate in missions together (Boyd, 2006). The guild provides a sense of group identity which encourages players to frequently return to the game. Player avatars also contribute to an individual's sense of identity and immersion.

Avatars

Teng (2017) found that players who identify with their avatars feel more socially present in gaming communities. Identifying with an avatar refers to the emotional connection rather than the avatar character necessarily being a literal representation of the player. Although technology currently does not permit physical contact between players over the Internet, avatars can be useful for visualizing their interactions (Sadowski & Lomanowska, 2018). MMORPGs often have a selection of animations, or emotes, for players to use and have their avatar perform various actions such as waving, sitting, dancing, laughing, and crying. Some include emotes such as handshaking, hugging, or high fiving which pairs of players can use simultaneously to mimic direct interactions with each other. Emotes add an element of social interactivity to the game by simulating FtF interactions in a virtual space. Sadowski and Lomanowska (2018) speculated that representations of social touch may provide perceived effects of tactile contact and "promote some of the benefits of direct social touch on well-being" (p. 8).

MMORPGs Facilitating Interpersonal Connection

Weissman (2017) investigated the impact MMORPGs have on people's feelings of connectedness with others. The research focused on the negative impacts rather than exploring the positive impacts of online interpersonal interaction. He claimed that there were "numerous cases where people have lost marriages, all previous friendships, and even their own children" due to intense online gaming (Weissman, 2017, p. 7). The hypothesis was that being immersed in MMORPGs leads to a decline in interpersonal functioning, however, the results of the study did not support this. Weissman (2017) used the UCLA Loneliness Scale and discovered that the longer participants spent in-game, the lower their level of loneliness was. This showed the potential MMORPGs have in promoting interpersonal relationships and possibly creating strong friendships.

Another strength of the MMORPG player population lies in the vastness. There is an estimated 10 million players (Boyd, 2006) A study on friendships in MMORPGs by Ramirez (2018) demonstrated the use of social media as a means of recruiting participants. This study used the game EVE Online as the point of research due to the heavy use of the popular MMORPG, World of Warcraft. There was a concern that a generalization of theory related to online gaming can be misleading since not all MMORPGs create the same experiences as in World of Warcraft (Taylor, 2008, as cited in Ramirez, 2018). To recruit participants, Ramirez (2018) posted an announcement on the r/EVE forum on the popular website Reddit. The post was publicly available for viewing, and thirty-seven people volunteered to participate in the study. This proved to be an effective recruitment method for a single specific study population.

Attachment Theory Overview

To understand online friendships, it can be useful to view them from the context of attachment theory (Coulson et al., 2018). Attachment theory is a theory of personality by Bowlby (1982) in which people have instinctual survival behaviors during childhood that influences their relationships with others. Bowlby (1982) believed that children develop attachment, or proximity-seeking behaviors as a means of finding safety with their primary caregiver and gaining protection from their environment. These experiences shape the security of the child's internal working model of attachment (Bowlby, 1982; Kaiser, 2016).

The internal working model is a cognitive guideline for how a living being understands and interacts with the world (Bowlby, 1982). Working models collect and manipulate information to help a person predict the outcome of their behaviors and achieve specific goals. This affects how a person builds relationships with other people in life and develops emotional resilience against adverse situations such as rejection, separation, and loss. The nature of the child's experiences with their attachment figure are internalized into secure or insecure attachment in the internal working model (Kaiser, 2016).

Supportive and encouraging parents help a child gain a sense of self-worth and trust that other people can be helpful (Bowlby, 1982). This leads to the child having secure attachment which informs their relational behaviors in life. People with secure attachment are comfortable with intimacy and solitude (Holmes, 2001, as cited in Kaiser, 2016). They can reflect on their emotions and seek support from others to mitigate stress. However, insecure attachment can develop from negative experiences with the primary caregiver such as abuse and fear (Kaiser, 2016). People with insecure attachment have difficulty managing emotions and finding support from others when stressed. They tend to poorly function in personal and interpersonal areas throughout life (Blalock et al., 2015). Later in life, attachment relationships such as close

friendships in adolescence and adulthood can reflect a person's childhood attachment to an extent (Buote et al., 2009).

Attachment and Friendship Quality

Attachment theory can be useful for understanding online friendship as it shows the shift from a person's focus on physical proximity with a primary caregiver in childhood to the focus on psychological proximity in adulthood (Coulson et al., 2018). Every person has a unique attachment history with contexts, memories, and relationships that tie into their attachment behaviors (Shaver & Mikulincer, 2002). Attachment can have an impact on friendships because it influences a person's social interactions and how they perceive them (Grabill & Kerns, 2000). A study by Buote et al. (2009) examined how a person's attachment style may relate to the way they experience online and in-person friendships. The researchers saw that people with an insecure attachment style had lower quality in-person friendships than those who had a secure attachment style. However, people who had an insecure attachment style perceived the quality of their online friendships to be higher than their in-person friendships. This supported the notion that attachment affects how people experience friendships.

Art Therapy Assessments

The field of art therapy may provide new perspectives on attachment in relation to online friendships. Art therapy is a mental health profession that utilizes artmaking and psychotherapy to address and treat psychological issues (American Art Therapy Association, n.d.-a). Art assessments allow a person to reveal unconscious psychological content that may help an art therapist understand and contextualize the client's experience and inform their treatment plan (American Art Therapy Association, n.d.-b). They are also useful for opening the therapeutic dialogue, allowing art therapists to investigate presenting problems and find how they relate to

underlying psychological issues (Kaiser, 2016). It is necessary for assessments to have reliability and validity research to support their effectiveness and appropriate use with specific populations (American Art Therapy Association, n.d.-b).

Bird's Nest Drawing

An art therapy assessment with ties to attachment theory is the Bird's Nest Drawing (Kaiser, 1996; Kaiser & Deaver, 2009; Harmon-Walker & Kaiser, 2015). The Bird's Nest Drawing (BND) is a projective art therapy assessment that was designed to measure attachment security. In the BND, the client is instructed to draw a bird's nest and create a narrative around it. The assessment administrator interprets the participant's attachment style by examining "the drawing's overall impression, its symbolic content, and the formal qualities of [the] image" (Kaiser & Deaver, 2009, p. 32). One of the BND's strength lies in its good interrater reliability (Harmon-Walker & Kaiser, 2015). It is also easy to administer due to its nonthreatening nature (Kaiser & Deaver, 2009).

The bird's nest is familiar to most of the world, making it useful symbol of attachment that "provides safety, warmth, and caring" (Kaiser, 2016, p. 522). The BND allows art therapists to view the unconscious content of working models and learn about a client's perceptions of their close relationships. It can also show areas of concern regarding a person's attachment for the art therapist to address therapeutically. The BND is not without limitations despite having many years of research and development behind it.

The BND has limited usefulness as an assessment outside of a therapeutic setting (Yoon et al., 2020). Art therapists who use the BND in a therapy session can obtain additional information on their client's attachment security and style through discussions. Yoon et al.

(2020) warned that people should be cautious when interpreting the BND and take other information sources into account.

Chapter III: Methodology

This study aimed to create a further understanding of how the significance of online friendships compares to in-person friendships in terms of quality.

Population and Sample

The population of the present study was English-speaking adults 18 years of age or older who play an online video game. People of all genders, races, and ethnicities were invited to participate. The sample group was intended to represent the population of English-speaking adults who spend time socializing over the Internet. The aim was to have at least 10 participants in this study. Participants were required to digitally sign a consent form and confirm they were at least 18 years of age before beginning. Names were kept confidential in the study and replaced with code names (P1, P2, P3).

The student researcher recruited participants through social media platforms Twitter and Reddit. On Twitter, the researcher posted a recruitment flyer (Appendix F) with details about the study along with a link to the consent form. This post included the hashtags #research, #study, #onlinefriendships, #arttherapy, #onlinevideogames, #recruiting, and #psychology to increase visibility and outreach. The student researcher also posted the recruitment flyer on the subreddit page r/SampleSize. The post included a link to the Google Form containing the informed consent. To improve the participation rate, the researcher reposted the recruitment flyer on each platform multiple times throughout the month of May to the end of September. No participants or data submissions were accepted after 11:59:99 PM on September 30, 2022, and incomplete submissions were discarded. After receiving the completed consent form, the researcher emailed the participant a link to another Google Form which they were to complete as part of the study.

To maintain confidentiality, this Google Form did not save the participant's name or email address.

The student researcher received a total of 19 completed consent forms. Of the individuals who submitted the form, only 5 completed and submitted the participation form. Furthermore, 2 participants did not follow or complete the BND directive and the student researcher discarded their data from the results. At the end of the participation phase there were a total of 3 participants.

Participant Consent Process

Participants digitally completed and signed the consent form on Google Forms (Appendix A).

Location

The present study collected data entirely online, Participants completed their part in the study at home or any location where they were comfortable and had access to the Internet.

Confidentiality

To ensure confidentiality, the study never used real names when referring to the participants. Google Forms required the participants to provide an email address before uploading an image of their BND, however the student researcher did not include this information when saving the data as an Excel sheet. Consent forms were stored in a separate folder from the study data.

Research Design

The study took a qualitative approach to explore the positive social interactions between people who play online video games. The study used attachment theory to understand and describe the differences between online and in-person friendships. Factors of friendship quality

such as how important a person considers their friendship or how much conflict a person has with their friend were also useful for gathering qualitative information describing each friendship type. Exploration through the context of attachment theory may have also provided insight into how a person experiences friendship differently online or in-person.

Procedures

Participants first completed a consent form (Appendix A). Upon receiving the completed consent form, the student researcher emailed the participant a link to the Google Form which included the demographics survey (Appendix B), a two-part questionnaire about the friendship quality of an online friendship and an in-person friendship (Appendix C), the Bird's Nest Drawing directions (Appendix D), and a section where participants uploaded a scan or photo of their completed art directive. At the end of the form there was a thank you message from the student researcher and a link to the debriefing statement (Appendix E).

Measures, Assessments, and Interventions

The student researcher developed a demographics survey with 14 questions. This survey asked the participant's age, gender, ethnicity, country of residence, the main video game they currently play, and how much time they spend on it. It also included questions about the participant's closest online and closest in-person friendships. It asked how long they have known their friend, where they met them, how frequently they communicate, and what methods of communication they use. There were two optional free response questions where the participant could include additional comments about each friend.

The questionnaire in the present study was adapted from the Friendship Quality Scale (Berry et al., 2000a, 2000b). Reproduction and use of this questionnaire was authorized for non-commercial research and educational purposes without seeking written permission. Berry et al.

(2000b) originally validated the Friendship Quality Scale using the five-factor model. The researchers found that positive and negative affect strongly predicted levels of conflict and feelings of closeness in people's friendships. The student researcher in the present study expanded the Friendship Quality Scale to include two sets of 5 items. This version of the questionnaire however was not tested for validity or reliability. The first set of items were regarding the quality of the participant's closest online friendship. The second set of items were regarding the quality of the participant's closest in-person friendship. Each of these items were rated on a 9-point scale with 1 being "not at all" and 9 being "very much."

The BND assessment by Kaiser (1996) had over 20 years of validation research with its theoretical basis in attachment theory (Harmon-Walker & Kasier, 2015). This assessment was authorized under the condition it is only used within the purpose of private study, scholarship, or research. The directions for the Bird's Nest Drawing (BND) were to draw a picture of a bird's nest, write a short story about the image, then give the drawing a title. The student researcher analyzed the BND using Kaiser's (2016) scoring methodology. The BND lacked a reliable method of systematically rating the short stories (Yoon et al., 2020).

Materials

The present study utilized social media platforms Twitter and Reddit to recruit participants. The study also used Google Forms to collect questionnaire responses. The art directive required each participant to use an 8.5"x11" sheet of paper, a pencil, and color pencils or markers. The directions instructed participants to use a scanner or camera to take an image of their artwork and submit it using the file upload section provided.

Data Collection Methods

The data collection process took place entirely online through Google Forms. Each participant completed a form containing a 14-question demographic survey, a two-part Friendship Quality Survey, the BND instructions, a space to write a short story for the BND, and a section where the participant uploaded an image of their completed BND.

The first step was to gather information on each participant, their online and in-person friendships, and behavior of playing an online video game. Participants responded to the demographics survey using typed short answer responses, multiple-choice responses, and checkbox responses. The Friendship Quality Survey had two sections, each with 5 items. Participants selected a multiple-choice response to rate each item on a 9-point scale with 1 being “not at all” and 9 being “very much.” The final component of the study was assessing attachment using the BND art directive. The instructions told participants to draw a picture of a bird’s nest on an 8.5”x11” sheet of paper and write a short story about their image. After completing the BND, the participants typed their short story and uploaded a photo or scan of their drawing using the sections provided in the Google Form.

Data Analysis

The student researcher used a qualitative approach to analyzing the data and treated each participant as an individual case study. The scores on the Friendship Quality Scale provided five points of comparison between each participant’s closest online friendship and their closest in-person friendship. Data from the demographic survey were potential areas of exploration into how participants experience each friendship type differently. The student researcher then examined each participant’s scores on the Friendship Quality Scale to compare their closest online friendship to their closest in-person friendship. explored the commonalities between the

three participants' data and the content of their Bird's Nest Drawings. Each participant created a unique story about their drawing and demonstrated widely varying artistic styles.

When analyzing the BND, the student researcher used Kaiser's (2016) rating items and scoring methodology. There were 14 items describing different characteristics of the drawing. The student researcher rated these items "using a Likert scale to determine the extent to which they are evident" (Kaiser, 2016, p. 520). The ratings were on a 1 to 5-point scale with 1 being "strongly disagree" and 5 being "strongly agree." To complete the BND scoring process, the student researcher averaged the first six items, then averaged the last eight items. A drawing represented secure attachment if the first average was greater than the second, and a drawing represented insecure attachment if the second average was greater than or equal to the first. The researcher looked for possible links between the participant's attachment security and their questionnaire responses to interpret the nature of their friendships.

Risks and Benefits

This study had participants answer questions regarding an in-person and online friendship. There was a minimal risk that participants may feel uncomfortable answering the questionnaire and begin to realize how their friendships are different from each other. The participant potentially experienced embarrassment if they perceived that they valued one friend over another. Another minor risk was that participants who weren't confident in their artistic ability may have felt self-conscious while completing the Bird's Nest Drawing art directive.

By partaking in this study, the participants had the chance to reflect on their closest friendships and potentially gain a deeper appreciation for them. Benefits to the field of Art Therapy included a better understanding of the dynamics of online friendships. The findings of

this study may open the potential use of art therapy in addressing issues stemming from online interpersonal relationships.

Protection of Human Participants

All completed consent forms, questionnaires, and artwork were sent to a password-protected e-mail address. A copy of each file was saved on a password-protected computer that was kept within a locked house. All copies of the data collected will be deleted from the email and computer hard drive a year following the completion of this study. Consent forms were stored in a folder separate from the questionnaires and artwork. The Debriefing Statement included a link to the About Art Therapy page on the American Art Therapy Association (AATA) website which participants could refer to for information on the field of art therapy. There was also a link to the Art Therapist Locator page on AATA's website which had an interactive map where participants could find practicing art therapists across the United States. This study was approved by the Institutional Review Board of Dominican University of California. This study adhered to the ethical guidelines of the California Association of Marriage and Family Therapists, the American Art Therapy Association, and Dominican University of California.

Chapter IV: Results

The purpose of this research was to create an understanding of how the significance of online friendships compare to in-person friendships in terms of quality and explore the use of art therapy to address issues stemming from exclusively online interpersonal relationships. Each participant in the present study completed a demographics form, the Friendship Quality Scale, and the Bird's Nest Drawing. This study had a total of three participants. Due to the small number of participants reflecting only a small number of experiences, the student researcher viewed each set of results as individual case studies to discuss each participant.

All three participants reported on their closest online and in-person friendships and produced coherent BNDs with cohesive stories. Each participant's in-person friendship was several years older than their online friendship. None of the participants used video chat or communicated in-person with their online friend. On the Friendship Quality Scale, participants rated each item on a scale of 1 to 9 with 1 being "not at all" and 9 being "very much." Every participant gave a high score of at least 8 for how important they considered each of their closest friendships. Of the three participants, P3 had the largest score difference between his online and in-person friendship on a single item on the Friendship Quality Scale. He was also the only participant who did not report playing an MMORPG.

Participant 1 "P1"

The first participant, P1, was a 24-year-old white nonbinary individual living in the United States. The main online video game P1 played was *Final Fantasy XIV*, an MMORPG (Square Enix, n.d.). On average they played 16 hours a week. They met their closest online friend through an "Online Fandom Chat Room," and they have known each other for 5 years. On average, they communicate 6 days a week using text and image-based chat, voice chat, and in-

game text-based chat. P1 met their closest in-person friend at a local board game store, and they have known each other for 9 years. On average, they communicate 7 days a week using text and image-based chat and voice chat.

P1 experienced closely matching high friendship quality with both friends. They had only very slightly higher quality with their in-person friend. P1's Friendship Quality Scale responses for their closest online and in-person friendships were very similar to each other (Table 1). Both friendships had high ratings (higher than 5) on items measuring positive aspects of friendship. Both friendships also had low ratings (lower than 5) on items measuring negative aspects of friendship. P1 gave the same rating for both friendships on two out of the five items. Each of the other three items had only a 1-point difference between the two friendships.

P1's BND

P1's BND contained themes of both secure and insecure attachment. The drawing depicted two eggs safely kept inside the nest without any danger present. Although there was no bird present and the eggs were seemingly abandoned, they both patiently waited to hatch in anticipation of exploring the world around them. After scoring the BND, the student researcher determined that P1's BND suggested a secure attachment. The average rating of the first six items was 1.677 (rounded to the nearest thousandth) and the average of the latter eight items was 1.375 (Table 2).

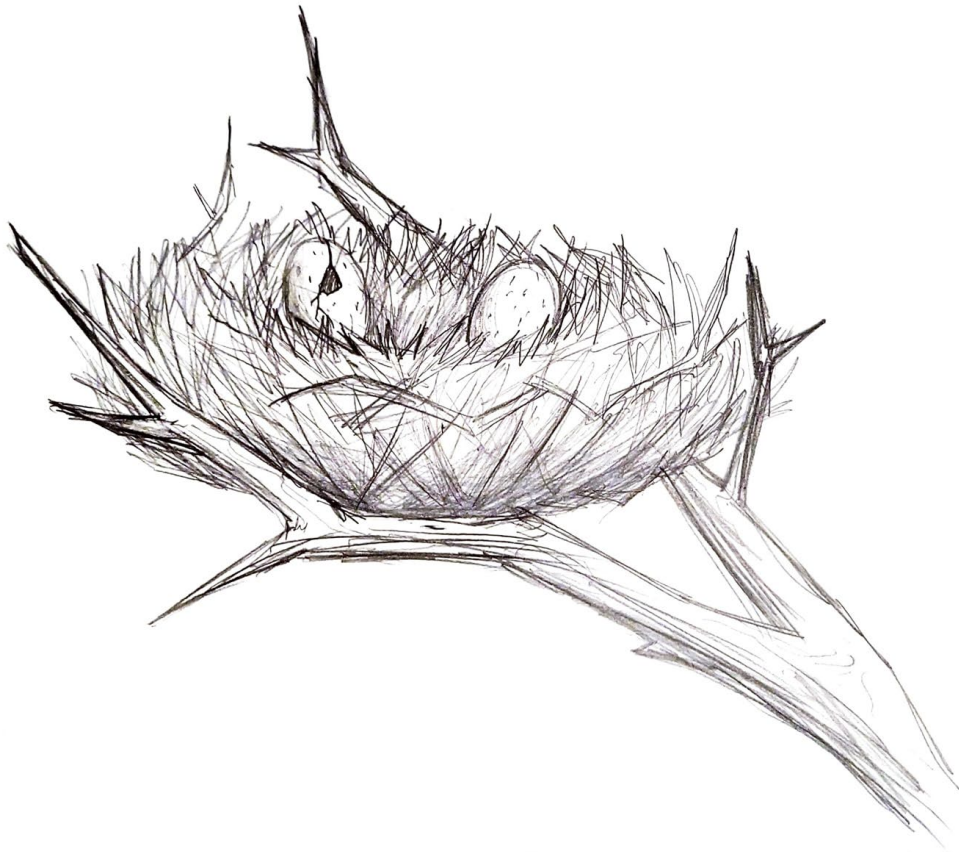
For the BND assessment, P1 created a monochrome drawing of a bird nest with two eggs inside sitting between the forked end of a single tree branch (Figure 1). P1 drew their picture mainly using heavy linework. Nearly every part of the drawing aside from the eggs was made up of either straight or very slightly curved lines. P1 did not use any soft marks and they used a crosshatching technique to create shading at the bottom of the nest. The nest was horizontally

level and secured between a fork in a tree branch. The branch extended from the lower right corner of the page and reaches towards the top left. Both sides of the fork in the branch had large barbs facing away from the nest. One of the eggs in the nest was slightly tilted and resting against the left interior wall while the other egg was tilted and resting against the right interior wall. The eggs were roughly the same size and there was a space in between them that was approximately the same width. There was a crack and a small hole on the left egg. The right egg was perfectly intact, however. P1 wrote the following story for their BND:

The nest lies gently at the top of a tree, the branches holding it bearing no leaves. They leave the nest unprotected, its bounty of two small eggs swaying freely atop the world. There the two eggs remained, untouched, left by whatever placed them there alone. Quietly, the two eggs watched as the world turned around them from their perch, waiting for the moment that what lay inside them would break free, shattering the eggs in their escape. But, for now the eggs waited, watching, silently, until the first crack forms.

Figure 1

Untitled



Participant 2 “P2”

The second participant, P2, was a 35-year-old white female living in the United Kingdom. The main online video game she played was *Zenith*, a virtual reality fantasy MMORPG (Zenith, n.d.). On average she played 8 hours a week. She met her closest online friend through a “Discord modding community,” and they have known each other for 3 years. On average, they communicate 5 days a week using text and image-based chat, voice chat, and in-game voice chat. P2 met her closest in-person friend during her third year of school, and they have known each other for 28 years. On average, they communicate 6 days a week using text and image-based chat, voice chat, voice and video chat, and in-person meetups. P2 noted that she also works with this person.

P2 experienced high friendship quality with both friends and overall had slightly higher quality with her in-person friend. However, she also had more conflicts with her in-person friend. P2’s Friendship Quality Scale responses for her closest online and in-person friendships were similar overall with four out of the five item ratings slightly diverging (Table 3). Both friendships had high ratings (higher than 5) on items measuring positive aspects of friendship. Both friendships also had low ratings (lower than 5) on items measuring negative aspects of friendship. P2 rated her online friendship 2 points higher than her in-person friendship on “How much does your friend get on your nerves?” This was the only item on P2’s responses that had ratings that diverged by more than 1 point between her two friendships.

P2’s BND

P2’s BND mainly contained themes of insecure attachment. The egg was completely vulnerable to the snakes and there was no bird present. In the story, the bird had left the nest to find food, leaving the egg unguarded and exposed to danger. After scoring the BND, the student

researcher determined that P2's BND suggested an insecure attachment. The average rating of the first six items was 1.677 (rounded to the nearest thousandth) and the average of the latter eight items was 1.875 (Table 4).

For the BND assessment, P2 created a monochrome drawing using what appeared to be soft graphite or charcoal (Figure 2). P2 drew her picture using soft marks, giving the image a "fuzzy" quality. The nest took up more than half of the space on the page, starting from the bottom. It was made up of several thick twigs stacked and overlapping each other, forming an oval structure around an egg and a snake. The snake was laying completely inside the nest with its head up close to the left of the egg. Another snake was watching the egg from the top left of the image, suspended over the left edge of the nest. The tail end of the snake extended beyond the left of the page. The snake curved its head down towards the egg while sticking out its forked tongue. P2 wrote the drawing's title, *The Cruelty of Circumstance*, at the top right of the image. P2 wrote the following short story for her BND:

The bird stalks from its' perch, awaiting the moment it cannot afford to miss; a meal to satisfy the hunger which aches in its belly. Rainfalls bring fresh earthworms and nothing quite satisfies like fresh protein - but it must choose its moment wisely. To leave the nest unguarded even for a moment is to invite disaster... for she is not the only one with an ache in her belly.

The brush moves. A leaf shifts and a meal peaks out. It's now or never - she leaps from the perch and glides toward her prey, her budding cherub now exposed to the elements.

The serpent sees all.

Figure 2

The Cruelty of Circumstance



Participant 3 “P3”

The third participant, P3, was a 27-year-old Hispanic male living in the United States. The main online video game he played was *Call of Duty*, a first-person shooter (FPS). On average he played 14 hours a week. He met his closest online friend through a “video game online,” and they have known each other for 2 years. On average, they communicate 4 days a week using text and image-based chat, social media interactions, and in-game voice chat. P3 met his closest in-person friend in middle school, and they have known each other for 15 years. On average, they communicate 7 days a week using text and image-based chat, social media interactions, voice and video chat, and in-game voice chat.

P3 experienced higher friendship quality with his in-person friend than with his online friend. However, he considered it equally highly important that he remained close friends with them. P3’s Friendship Quality Scale responses for his closest online and in-person friendships diverged by 2 or more points on four out of the five items (Table 5). P3 rated his in-person friendship 4 points higher than his online friendship on “How close are you?” This item had the highest rating difference between friendships across all three participants’ responses.

P3’s BND

P3’s BND mainly contained themes of secure attachment. While the bird was not present in the drawing, the story described how the bird provided protection and security for its children. The bird put in effort to provide security despite the challenges of obtaining the best food and avoiding predators. The story also stated that the nest was well-protected and built on a strong foundation, emphasizes the safety it provided. After scoring the BND, the student researcher determined that P3’s BND suggested a secure attachment. The average rating of the first six

items was 2.333 (rounded to the nearest thousandth) and the average of the latter eight items was 1.375 (Table 6).

For the BND assessment, P3 created a drawing with a graphite pencil or pen and multiple color pencils (Figure 3). P3 drew the bird's nest as a crescent shape with rounded ends on its left and right sides. The nest roughly forms a "U" shape in the middle of the page. P3 outlined the shape of the nest using a graphite pencil or pen. He completed the rest of his drawing with coloring pencils. He colored the inside of the nest brown using a crosshatching technique and allowed the marks to cross outside of the nest's outline. Three objects were horizontally lined up inside the nest. On the left there was a dark red apple with a dark green stem, in the middle there was a brown leaf, and on the right, there was an egg-shaped orange. In the space below the drawing, P3 wrote the title, The Collector, centered and underlined, followed by his short story about the image. P3 wrote the following story for his BND.

The bird has many responsibilities: Watch over its little birds, scout for predators, and even find additional twigs to add to the nest. But most of all it must collect, collect to survive and support its little birds. It was not easy to find what the bird found, but the bird did it. It had to fly extra high to find the best apple in the tree, it had to have the most strength it could to pull off the orange, and it had to have the courage to retrieve vegetation from the ground and avoid predators. This is not your ordinary nest it's protected well by the bird and it was built on a strong foundation.

Figure 3

The Collector



The collector

The bird has many responsibilities: watch over its little birds, scout for predators, and even find additional twigs to add to the nest. But most of all it must collect, collect food to survive & support its little birds. It was not easy to find what the bird found, but the bird did it. It had to fly extra high to find the best apple in the tree, it had to have the most strength it could have to pull off the orange, and it had to have the courage to retrieve vegetation from the ground and avoid predators. This is not your ordinary nest it's protected well by the bird and it was built on a strong foundation.

Chapter V: Discussion

Through a qualitative approach and theoretical lens of attachment theory, the student researcher explored the social relationships of people who play online video games. The data provided three case studies with rich qualitative information on people's in-person and online friendships.

While online friendship is not a new concept, there is little research around how people experience them in comparison to traditional in-person friendships. On the Internet people can develop and maintain friendships in a completely digital environment without ever meeting their friend in person, knowing what they look like, or even knowing their real name. Regardless of the level of anonymity a person chooses to keep, an online friendship may still grow beyond being a casual acquaintanceship. The implications these types of friendships have on the field of psychology is not yet thoroughly understood.

This present study aimed to create an understanding of how the significance of online friendships compare to in-person friendships in terms of quality. Through a qualitative approach and theoretical lens of attachment theory, the student researcher explored the social relationships of English-speaking adults who play online video games and have an online friend. The study utilized the Bird's Nest Drawing (BND) art therapy assessment to reveal themes of attachment through image-making and provide insight into the different types of friendships. It also helped explore the use of art therapy to address issues stemming from exclusively online interpersonal relationships.

Results

Exclusively online friendships in the present study all developed more recently than the in-person friendships. The three participants in the present study knew their in-person friend

longer than their online friend by several years, though the ratings on the Friendship Quality Scale did not widely differ between the two friendship types. This unsurprisingly showed that all participants considered their two closest friendships highly important.

P1 appeared to have the healthiest attachment of all the participants. Their BND suggested a secure attachment which coincided with having both friendships with high levels of quality. P1's secure attachment allowed them to maintain healthy and meaningful close friendships regardless of whether they were in-person or online.

It seemed that having an insecure attachment did not impair P2's ability to form and maintain high quality friendships. Despite showing heavy themes of insecure attachment in the BND, P2's friendships both were high quality. She also did not seem to have a strong preference between online or in-person friendships. It is possible that she was able to develop attachment security from interpersonal relationships in adolescence or adulthood and compensate for experiencing insecure attachment during childhood.

P3 had a secure attachment and experienced high friendship quality with his in-person friend. Despite having more conflicts in his online friendship and considering it less close or important than his in-person friendship, he considered it highly important to remain close to both friends. It is possible that he needed more time for the friendship to develop since he only knew his online friend for 2 years in contrast to his in-person friend who he knew for 15 years.

Another possibility is that the online video game genre had an impact on friendship quality. P3 was the only participant who played an FPS while P1 and P2 both played an MMORPG. MMORPGs tend to promote positive social interaction which could explain the difference in level of closeness. However, P1 and P2 met their online friend outside of an online video game, and it was unclear if they played the same game together. Therefore, it is impossible

to determine the relevance of the online video game genre in the present study. There also was a limited number of participants, making it difficult to suggest a correlation between online video game genre and friendship quality with a level of certainty.

Findings in the Context of Previous Research

The qualitative information from the Friendship Quality Scale was consistent with Chan and Cheng's (2004) finding that friendships can reach the same level of quality over time. While all participants in the present study knew their in-person friend longer than their online friend, they considered both friendships highly important and had overall very similar quality ratings. They each also knew their online friend for longer than a year. Chan and Cheng (2004) found minimal differences in friendship quality after six months to a year of development. The participants in the present study had friendships that lasted long enough for them to consider it worth the time and effort to maintain.

Researchers have found attachment to influence how people experience friendships (Coulson et al., 2018; Grabill & Kerns, 2000). In the present study, attachment security did not predict the participant's friendship quality. This could suggest that there were other interpersonal factors involved. For example, there may have been a specific reason why P3 experienced more conflicts with his online friend than his in-person friend. It was possible that his online friendship needed more time to develop before he and his friend understood each other well enough to avoid conflict.

Limitations

The participant recruitment methodology was not effective for gathering a large sample size. Conducting data collection over the Internet also created some threats to the validity of this

study. Future studies may benefit from attempting to validate attachment theory with a population whose social interactions are primarily over the Internet.

Participant Recruitment Limitations

A major limitation of this study was the small number of participants. This prevented the results from providing information of statistical significance. The limited quantity and diversity of participants severely restricted the data's degree of generalizability towards the population of worldwide adult Internet users. The student researcher originally intended to recruit a wide range of English-speaking adult participants across the world through video game communities on Reddit, which previous studies have utilized with great success (Ramirez, 2018). However, this was not possible due to the community rules at the time of the present study's recruitment phase disallowing people from posting links to surveys.

Another factor that likely contributed to the low participation rate was the lack of direct researcher-participant interaction. Having participants complete the participation form asynchronously at a location of their choice, at their own pace made the experience as comfortable and convenient as possible. The downside was that the student researcher could not be physically present to directly communicate with the participants and keep them engaged.

Methodology Limitations

This study faced a limitation with the application of the BND. The decision to conduct the study remotely created limitations to the BND's administration. The student researcher was not able to present a full set of art materials to each participant and ensure that they only used the materials listed on the BND instructions. The participants had to use the materials that were accessible to them at the time. This threatened the validity of assessing for the use of color in the drawings, as participants may not have had coloring pencils or markers readily available.

Validity

The student researcher deliberately chose to use the BND for the present study, as it is an art therapy assessment with over 20 years of validity research (Harmon-Walker & Kasier, 2015). It also has strong ties to attachment theory which is heavily supported by empirical evidence (Shaver & Mikulincer, 2002). The present study however had a few notable weak points of validity.

When using the BND, the student researcher did not assess for drawing development. Harmon-Walker and Kasier (2015) suggested that a person's drawing development level may influence the amount of realism and variety of colors they use. People with a low drawing development may produce sparser drawings with limited details. The student researcher was also not formally trained in administering and analyzing the BND which may have affected the validity of the attachment security interpretations. In addition, using the BND outside of a therapy setting limited its usefulness for assessing attachment (Yoon et al., 2020).

Another issue of validity was related to the use of the term friendship quality. Not all researchers share the same concept of friendship quality. People's experience with friendship is also highly subjective and participants may not share the same idea of what an ideal friendship includes. The present study used the characteristics of friendship quality that Berry et al. (2000a) specifically included in the Friendship Quality Scale.

Implications for Future Research

To the student researcher's knowledge, this study was the first to explore the use of an art therapy assessment to address online interpersonal relationships. The results provided three unique case studies showing qualitative comparisons of online and in-person friendships. More than half of the people who signed the consent form did not participate. One possibility was that

after looking at the participation form, they felt it would be too time consuming and there were no tangible incentives. Another possibility was that people were not comfortable with sharing numerous details about their friendships. In future studies on online friendships, it may be helpful to include an incentive, such as a gift card raffle, to encourage participants to complete their part in the study.

The present study focused on the broad population of adult English-speaking online video game players with a close online and in-person friendship. Future studies should attempt to validate the BND with a population of participants who heavily prefer CMC and online friendships to FtF and in-person friendships. This population may include people with insecure attachment who struggle with intimacy and social anxiety as suggested by Shabahang et al. (2022). Studying this specific population can possibly help researchers and art therapists identify when a person's preference for online interaction and heavy Internet use is problematic or a sign of underlying issues related to attachment. Future studies using the BND should also include an interview to obtain additional information that may provide crucial context behind the attachment themes and symbology.

It is evident that online and in-person friendships can reach similar levels of quality over time (Chan & Cheng, 2004). It is also important to recognize the value that online friendships have for those who may otherwise experience social isolation due to issues such as high social anxiety. However, researchers should investigate the nature of their participants' online friendships and try to identify and define common indicators of both healthy and problematic online friendships. Making the distinction between them will help art therapists work with clients to maintain healthy social ties and properly address ones that are harmful.

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Appendix A: Consent to Participate in Research and Consent to Use Artwork

Consent to Participate in Research & Consent to Use Artwork

RESPONSIBLE INVESTIGATOR: Ian Wong

TITLE OF RESEARCH PROJECT: Friendships in the Age of the Internet

I have been asked to participate in a qualitative study that is investigating the differences between online and in-person friendships of individuals who play online video games and how they relate to themes of attachment uncovered in an art directive. The results of this study may support the potential use of art therapy in addressing issues stemming from online interpersonal interactions.

I understand that:

1. To qualify for this study, I must be 18 years of age or older
2. I will be asked to complete a demographics survey, a two-part questionnaire, and a drawing task. Total time of participation should be no longer than approximately one hour. However, there will not be a time limit.
3. The possible psychological risks of participating in this study are considered minimal and may include slight discomfort based on reaction to items on the questionnaire or the experience of drawing.
4. Should any feelings be elicited based on my participation in this study, I will be provided with a list of low-cost agencies that provide psychological services.
5. There may be minor benefits to me personally. By partaking in this study, I will have the chance to reflect on my closest friendships and potentially gain a deeper appreciation for them.
6. Although alternative procedures may be used, the present procedure is the most advantageous and economical.

7. The results of this study may be published, but any information from this study that can be identified with me will remain confidential and the data will be collected online to maintain anonymity.
8. Any questions about my participation in this study will be answered by Ian Wong through email (ian.wong@students.dominican.edu). Any questions or concerns regarding this study should be addressed to the Supervisor, Dr. Erin Partridge, via email (erin.partridge@dominican.edu).
9. My consent is given voluntarily without being coerced. I may refuse to participate in this study or in any part of this study, and I may withdraw at any time, without prejudice or with any future contact with Dominican University of California.
10. I have received a copy of this consent form for my record.

Consent to Use Artwork

TITLE OF RESEARCH PROJECT: Friendships in the Age of the Internet

I allow Ian Wong to use my artwork in an art therapy research project. I understand that no one will know that I participated in this study. My name and all other personal information (including anything I choose to talk about) will be kept secret and confidential.

I understand that some of my drawings might be shown to other art therapists, but my name will not be attached to my artwork.

I understand that my art will be photographed.

Email

I HAVE MADE A DECISION WHETHER OR NOT TO PARTICIPATE. Please check one:

YES, I agree to participate in this research study, and I agree to have my art as part of the study data.

NO, I do NOT agree to participate in this research study and have my art as part of the study data.

Date

MM/DD/YYYY

E-Signature Consent

I consent to sign this form electronically.

Appendix B: Demographic Survey

Demographic Survey

1. Age
2. Gender
 - Female
 - Male
 - Other...
3. Ethnicity
4. Country of residence
5. What is the main online video game that you are playing currently?
6. On average, how many hours per week do you spend on this game?

ONLINE Friendship Questions

1. How long have you known your closest **ONLINE** friend?
2. Where did you meet your closest **ONLINE** friend?
3. On average, how many days per week do you communicate with your closest **ONLINE** friend? (1–7)
4. What types of communication do you use with your closest **ONLINE** friend?
 - Text & Image-Based Chat (SMS, Discord, Skype, etc.)
 - Social Media Interactions (Reddit, Twitter, Facebook, etc.)
 - Voice Chat (Discord, Skype, Zoom, etc.)
 - Voice & Video Chat (Discord, Skype, Zoom, etc.)
 - In-Game Text-Based Chat
 - In-Game Voice Chat
 - Other...

5. Is there anything else you would like to share about your closest **ONLINE** friendship?

IN-PERSON Friendship Questions

1. How long have you known your closest **IN-PERSON** friend?

2. Where did you meet your closest **IN-PERSON** friend?

3. On average, how many days per week do you communicate with your closest **IN-PERSON** friend? (1–7)

4. What types of communication do you use with your closest **IN-PERSON** friend?

- Text & Image-Based Chat (SMS, Discord, Skype, etc.)
- Social Media Interactions (Reddit, Twitter, Facebook, etc.)
- Voice Chat (Discord, Skype, Zoom, etc.)
- Voice & Video Chat (Discord, Skype, Zoom, etc.)
- In-Game Text-Based Chat
- In-Game Voice Chat
- Other...

5. Is there anything else you would like to share about your closest **IN-PERSON** friendship?

Appendix C: Friendship Quality Scale

Friendship Quality Scale

Each item is rated on a 9-point scale with 1 being “not at all” and 9 being “very much.”

Friendship Quality: Closest Online Friend

1. Compared to other friendships (online AND in-person) you've had, to what extent do you consider yourself to be close to your **online** friend?
2. Compared to other friends you've had (online AND in-person), how important is this **online** friendship to you?
3. How much does your **online** friend 'get on your nerves'?
4. Compared to the other friendships (online AND in-person), how much conflict do you have with your **online** friend?
5. How important to you is it that the two of you remain close friends?

Friendship Quality: Closest In-Person Friend

1. Compared to other friendships (online AND in-person) you've had, to what extent do you consider yourself to be close to your **in-person** friend?
2. Compared to other friends you've had (online AND in-person), how important is this **in-person** friendship to you?
3. How much does your **in-person** friend 'get on your nerves'?
4. Compared to the other friendships (online AND in-person), how much conflict do you have with your **in-person** friend?
5. How important to you is it that the two of you remain close friends?

Appendix D: Bird's Nest Drawing Directions

Bird's Nest Drawing Directions

Materials: 8.5"x11" sheet of paper, a pencil, color pencils/markers

1. Draw a picture of a bird's nest. There is no time limit
2. Write a short story about your image with a beginning, middle, and end.
3. Give your drawing a title and write it on the page.
4. When you have finished, please upload a photo or scan of your drawing.

Appendix E: Debriefing Statement

Debriefing Statement

Thank you for participating in my research. Your participation is highly appreciated and the data you provided will help advance the field of Art Therapy. In an era where people are increasingly connected through the internet, it is crucial to understand the dynamics of online friendships and how Art Therapy may be used to talk about them. If you have any questions or concerns regarding this study, please do not hesitate to contact me at Ian.Wong@students.dominican.edu or on Twitter [@IanArtTherapy](https://twitter.com/IanArtTherapy).

For more information on the field of Art Therapy, please visit <https://arttherapy.org/about-art-therapy/>. You may also visit <https://arttherapy.org/art-therapist-locator/> to find an art therapist near you.

Thank you for your participation!

-Ian Wong

Appendix F: Recruitment Flyer

Now Recruiting Participants for a Study on Online Friendships!

- Do you play an online video game?
- Do you have a close friend you've met online?
- Interested in participating in a short study?*
- Your participation will contribute to the field of Art Therapy and help create a better understanding of the dynamics of online interpersonal interaction.

If you are interested in participating, please click the link to the consent form provided in this post. After receiving the completed form, the researcher will email you a link to the Google Form where you will participate in this study. (Your email will only be used to send you a copy of your consent form and the link. Your email will not be linked to the participation form.)

**All participants must be at least 18 years of age.*

Researcher Contact Info:
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DOMINICAN
UNIVERSITY
of CALIFORNIA

Appendix G: Table 1

Table 1

P1 Friendship Quality Scale

Question	Online Friendship	In-Person Friendship
1. How close are you?	8	8
2. How important is your friendship?	8	9
3. How much does your friend get on your nerves?	2	1
4. How much conflict do you have?	1	1
5. How important is it that you remain close friends?	8	9

Appendix H: Table 2

Table 2

P1 BND Item Ratings

Item	Rating
1. One of more birds are depicted.	1
2. A bird family is included.	1
3. An environment is included.	3
4. Four or more colors are used in the drawing.	1
5. Green is the dominant color in the drawing.	1
6. The BND story is coherent AND contains mostly positive themes.	3
7. Brown is the dominant color in the drawing.	1
8. The nest is tilted 45 degrees or more, such that it appears the contents might fall out.	1
9. The nest lacks a bottom, such that it appears the contents might fall out.	1
10. The nest is depicted in a vulnerable position.	3
11. Line quality suggests excessive energy and fills most of the paper space.	1
12. There are restarts, erasures, or areas crossed out.	1
13. There are unusual, bizarre, incoherent, or disorganized elements or approaches to the drawing.	1
14. The BND story is either incoherent OR includes mostly negative themes, or BOTH.	2

Appendix I: Table 3

Table 3

P2 Friendship Quality Scale

Question	Online Friendship	In-Person Friendship
1. How close are you?	7	7
2. How important is your friendship?	8	9
3. How much does your friend get on your nerves?	1	3
4. How much conflict do you have?	1	2
5. How important is it that you remain close friends?	8	9

Appendix J: Table 4

Table 4

P2 BND Item Ratings

Item	Rating
1. One of more birds are depicted.	1
2. A bird family is included.	1
3. An environment is included.	5
4. Four or more colors are used in the drawing.	1
5. Green is the dominant color in the drawing.	1
6. The BND story is coherent AND contains mostly positive themes.	1
7. Brown is the dominant color in the drawing.	1
8. The nest is tilted 45 degrees or more, such that it appears the contents might fall out.	1
9. The nest lacks a bottom, such that it appears the contents might fall out.	1
10. The nest is depicted in a vulnerable position.	5
11. Line quality suggests excessive energy and fills most of the paper space.	4
12. There are restarts, erasures, or areas crossed out.	1
13. There are unusual, bizarre, incoherent, or disorganized elements or approaches to the drawing.	1
14. The BND story is either incoherent OR includes mostly negative themes, or BOTH.	1

Appendix K: Table 5

Table 5

P3 Friendship Quality Scale

Question	Online Friendship	In-Person Friendship
1. How close are you?	5	9
2. How important is your friendship?	7	9
3. How much does your friend get on your nerves?	2	5
4. How much conflict do you have?	1	4
5. How important is it that you remain close friends?	9	9

Appendix L: Table 6

Table 6

P3 BND Item Ratings

Item	Rating
1. One of more birds are depicted.	1
2. A bird family is included.	1
3. An environment is included.	1
4. Four or more colors are used in the drawing.	5
5. Green is the dominant color in the drawing.	1
6. The BND story is coherent AND contains mostly positive themes.	5
7. Brown is the dominant color in the drawing.	4
8. The nest is tilted 45 degrees or more, such that it appears the contents might fall out.	1
9. The nest lacks a bottom, such that it appears the contents might fall out.	1
10. The nest is depicted in a vulnerable position.	1
11. Line quality suggests excessive energy and fills most of the paper space.	1
12. There are restarts, erasures, or areas crossed out.	1
13. There are unusual, bizarre, incoherent, or disorganized elements or approaches to the drawing.	1
14. The BND story is either incoherent OR includes mostly negative themes, or BOTH.	1