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Abstract

Friendships are beneficial to individual happiness. Studies have examined virtual relationships; however, the quality and utility of adult, online gaming friendships and their relationship with happiness is still not well understood. Respondents were surveyed about friendship quality with their closest friends across two modalities (face-to-face or online via gaming), as well as other relationship characteristics including communication frequency and friendship length. We identified a statistically significant difference between the modalities in friendship quality. We also identified a relationship between friendship quality and happiness. We discuss these results in terms of practical implications concerning friendship quality in face-to-face and online gaming best friendships and their influence on happiness.

Keywords: happiness, friendship quality, online friendships

Friendship is a universal human experience that is highly desired by individuals across all stages of life (Bukowski et al., 2009; Hartup & Stevens, 1997). Rawlins (1992) reports that ideal American friendships are voluntary, personal, equal, affective, and characterized by mutual involvement. Additionally, individuals place importance on self-disclosure, sociability,

day-to-day assistance, shared interests, loyalty, trustworthiness, honesty, respect, safety, acceptance, dependability, generosity, and emotional support within their friendships (Adams et al., 2000; Bukowski et al., 2009; Tillmann-Healy, 2003).

Research has also identified benefits associated with creating and maintaining friendships. Friendships are important for establishing social development and adjustment skills in children (Berndt, 2002; Ladd et al., 1996) and for sustaining the vital need for social connectedness in older adults (Blieszner et al., 2019). Friendships are associated with reduced loneliness (Nicolaisen & Thorsen, 2017), increased positive perceptions of life quality (Abbey & Andrews, 1985), better coping abilities during times of hardship (Skovdal & Ogutu, 2012), as well as decreased stress, diminished risk of mortality, and better health (Cohen, 1988; House et al., 1988; van der Horst & Coffé, 2012).

Additionally, friendship also has strong ties to happiness (Demir & Ozdemir, 2010). The term "happiness" is often used interchangeably and colloquially with the concept of "subjective well-being" (Demir & Weitekamp, 2007; Diener, 2000; World Happiness Report, 2012), which is defined as "a person's cognitive and affective evaluations of his or her life as a whole," (Diener et al., 2009, p. 187). Happiness is connected to people's traits, and their network of social relationships (Myers & Diener, 1995). Individuals with several close, highly self-disclosing friendships are happier than people who have few or no such friendships (Myers & Diener, 1995). Diener & Seligman (2002) found that very happy people reported higher-quality close friendships and spent more time with their family, friends, and romantic partners compared to average and very unhappy people.

How Computer-Mediated Communication Shapes Modern Friendships

While friendships typically develop through face-to-face interaction (Chan & Cheng, 2004), the nature of modern friendships is rapidly changing due to the prevalence of computer-mediated communication (e.g., instant messaging, social media, online gaming). In adults, internet use is associated with reduced rates of depression and loneliness (Cotton et al., 2012) as well as improved quality and quantity of social ties (Barbosa Neves et al., 2018). Friendships are facilitated by the internet, with users leveraging the internet's capabilities to maintain and extend social relationships that were formed offline and to create new friendships with other online individuals (Rice et al., 2007).

Online gaming affords opportunities for developing and maintaining social relationships and friendships (Herodotou et al., 2014; Huang et al., 2015; Lai & Fung, 2019; Lenhart et al., 2015). Many studies have provided evidence of positive social interactions experienced by

online gamers (Domahidi et al., 2018; Frostling-Henningsson, 2009; Kowert & Oldmeadow, 2015; Lai & Fung, 2019). A recent report produced by the Anti-Defamation League (ADL; 2019) reported that online games provide players with opportunities to connect with others, build friendships and communities, and supply spaces for learning and knowledge sharing. While some studies have found that gamers report significantly higher perceptions of friendship quality among their online friends compared to their offline friends (Frederick & Zhang, 2021; Zhang & Frederick, 2018), the influence of online gaming friendships have on friendship quality and happiness is still not well understood. Considering the prevalence of online gaming and friendships as well as the importance of happiness, it is important to understand how online gaming shapes friendship quality and happiness.

The Present Study: Differences in Friendship Based on Modality

To assess differences in face-to-face and online gaming friendship quality, we propose the following hypotheses:

- H1: Friendship quality will significantly differ based on modality (face-to-face or online gaming).

- H2: Face-to-face friendship quality will be positively related to overall life happiness.

- H3: Online gaming friendship quality will be positively related to overall life happiness.

Methods

Participants, Measures and Design

Participants (N = 182) were recruited from the United States using a convenience sample of users from Amazon's Mechanical Turk (MTurk) platform. Screening criteria required potential participants to be at least 18 years old and to be able to reflect on their closest online gaming friendship, as well as their closest face-to face friendship with a different individual. Participants were invited to respond to a survey, which included demographic items, characteristics of respondents' relationships with their closest face-to-face friend and closest online gaming friend, age of these friends, the length of these relationships in years, frequency of communication with each of these friends, the McGill Friendship Questionnaire (Mendelson & Aboud, 1999) and the Oxford Happiness Questionnaire (Hills & Argyle, 2002). Participants completed the friendship scale twice, once for their closest face-to-face friend and then

for their closest online gaming friend. Participants included 73 females, 107 males, and 2 no-gender identified,with an average age of 35.19 (*SD* = 9.84) years.

Results

Friendship Quality Modality Differences (Hypothesis 1)

We calculated averages of respondents' scores for their closest face-to-face friend and closest online gaming friend across each subscale in the McGill Friendship Questionnaire (i.e., *Stimulating Companionship, Help, Intimacy, Reliable Alliance, Emotional Security, and Self-Validation)*. Respondents indicated higher perceptions of friendship quality with the closest face-to-face friend compared to their closest online gaming friend across each subscale. We performed multiple one-way, repeated measures ANOVAs and identified statistically significant differences in Stimulating Companionship scores between the modalities $F(1, 181) = 55.886$, $p < .01$) in Help $F(1, 181) = 126.554$, $p < .01$), Intimacy $F(1, 181) = 152.396$, $p < .01$), Reliable Alliance $F(1, 181) = 90.982$, $p < .01$), Emotional Security $F(1, 181) = 109.739$, $p < .01$), and Self-Validation $F(1, 181) = 58.567$, $p < .01$)

Effects of Friendship Quality on Happiness (Hypotheses 2 and 3)

We performed a multiple regression to determine if respondents' perceptions of friendship quality in their relationships with their face-to-face friend and online gaming friend significantly predicted respondents' perceptions of happiness. Perceptions of happiness was the dependent variable and perceptions of quality in respondents' relationships with their face-to-face friend and online friend were predictors. We also used participants' age, friendship lengths, and communication frequencies as covariates. Our multiple regression significantly predicted respondents' perceptions of happiness, $F(9, 160) = 10.91$, $p < .001$, adjusted $R2 = .35$. This model accounts for approximately 35% of the variance observed in respondents' perceptions of happiness. Overall averages of perceptions of face-to-face friendship quality significantly affected perceptions of happiness with a positive standardized beta weight ($p < 0.001$, β = .53). Overall averages of perceptions of online gaming friendship quality significantly affected perceptions of happiness with a negative standardized beta weight ($p = 0.024$, β = -.17). Thus, our second hypothesis was supported while our third hypothesis was not supported.

Discussion

This research explored differences in self-reported happiness based on key characteristics of friendships, including friendship quality and friendship modality (face-to-face or online). We hypothesized that friendship quality would differ based on modality, which was supported.Descriptive and inferential analyses showed higher friendship quality scores for face-to-face friendships.We also hypothesized that face-to-face friendship quality would be positively related to overall life happiness. Our regression results suggested that face-to-face friendship quality significantly predicts perceptions of happiness in our sample with a *positive* standardized beta weight. Finally, we hypothesized that online gaming friendship quality would be positively related to overall life happiness.We did not identify a significant positive correlation between online gaming friendship quality and overall life happiness. Further, ourregression results indicate that online gaming friendship quality significantly predicted perceptions of happiness in our sample with a *negative* standardized beta weight.Since these results suggest that as online gaming friendship quality increases, overall happiness decreases, our third hypothesis was *not* supported. One potential explanation for these findings is that online gaming friendships inherently possess limitations on shared activities, which has been shown to be a universal characteristic of friendships (Plummer et al., 2016).

This work provided insights into the science of interaction modalities (face-to-face and online) regarding friendships and happiness. However, this study does have limitations. First, we had a relatively small sample for a survey study. Second, we did not screen participants to focus on an age range or those who play any particular types of games. We also did not examine personality or mental health correlates of friendship, nor did we consider the effect of gaming addiction on friendship. These aforementioned characteristics are limitations, however, they do represent avenues for future research. Future research could investigate perceptions of friendships with those who have less familiarization with technology. Similarly, studies could examine how demographic variables influence attitudes and perceptions of friendships. As recent events have shown, online interaction has become vitally important in maintaining connections with family and friends. However, our understanding of how online interaction influences human relationships is lagging behind the actual use of virtual technologies. While the present study illuminates some differences in face-to-face and online gaming friendships in terms of friendship qualities and happiness, more research in this area is needed.

References

Abbey, A., & Andrews, F. M. (1985). Modeling the psychological determinants of life quality. *Social Indicators Research*, *16*(1), 1-34. https://doi.org/10.1007/BF00317657</div> Adams, R. G., Blieszner, R., & De Vries, B. (2000). Definitions of friendship in the third age: Age, gender, and study location effects. *Journal of Aging Studies*, *14*(1), 117-133. https://doi.org/10.1016/S0890-4065(00)80019-5</div> Anti-Defamation League. (2019). *Free to play? Hate, harassment, and positive social experiences in online games.* https://www.adl.org/free-to-play</div> Barbosa Neves, B., Fonseca, J. R., Amaro, F., & Pasqualotti, A. (2018). Social capital and Internet use in an age-comparative perspective with a focus on later life. *PloS ONE, 13*(2), 1-27. https://doi.org/10.1371/journal.pone.0192119</div> Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science, 11*(1), 7-10. https://doi.org/10.1111/1467-8721.00157</div> Blieszner, R., Ogletree, A. M., & Adams, R. G. (2019). Friendship in later life: A research agenda. *Innovation in Aging*, *3*(1), 1-18. https://doi.org/10.1093/geroni/igz005</div> Bukowski, W. M., Motzoi, C., & Meyer, F. (2009). Friendship as process, function, and outcome. In K. Rubin, W. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 217-231). New York, NY: The Guilford Press.

Chan, D. K. S., & Cheng, G. H. L. (2004). A comparison of offline and online friendship qualities at different stages of relationship development. *Journal of Social and Personal Relationships*, *21*(3), 305-320. https://doi.org/10.1177/0265407504042834</div> Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychology*, *7*(3), 269-297. https://doi.org/10.1037/0278-6133.7.3.269</div> Cotton, S. R., Ford, G., Ford, S., & Hale, T. M. (2012). Internet use and depression among older adults. *Computers in Human Behavior, 28*(2), 496–499. https://doi.org/10.1016/j.chb.2011.10.021</div> Cummings, J. N., Butler, B., & Kraut, R. (2002). The quality of online social relationships. *Communications of the ACM*, *45*(7), 103-108. https://doi.org/10.1145/514236.514242</div> Demir, M., & Özdemir, M. (2010). Friendship, need satisfaction and happiness. *Journal of Happiness Studies, 11*, 243-259. https://doi.org/10.1007/s10902-009-9138-5</div> Demır, M., & Weitekamp, L. A. (2007). I am so happy cause today I found my friend: Friendship and personality as predictors of happiness. *Journal of Happiness Studies*, *8*(2), 181-211. https://doi.org/10.1007/s10902-006-9012-7</div> Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34-43. https://doi.org/10.1037/0003-066X.55.1.34</div> Diener, E., & Seligman, M. E. (2002). Very happy people. *Psychological Science*, *13*(1), 81-84. https://doi.org/10.1111/1467-9280.00415</div> Diener, E., Oishi, S.,

& Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction. In S. Lopez & C. Snyder (Eds.), *The oxford handbook of positive psychology* (pp. 187-194). New York, NY: Oxford University Press, Inc. https://doi.org/10.1093/oxfordhb/9780195187243.013.0017</div> Domahidi, E., Breuer, J., Kowert, R., Festl, R., & Quandt, T. (2018). A longitudinal analysis of gaming- and non-gaming-related friendships and social support among social online game players. *Media Psychology*, *21*(2), 288-307. https://doi.org/10.1080/15213269.2016.1257393</div> Frederick, C. M., & Zhang, T. (2021). Friendships in gamers and non-gamers. *Current Psychology.*https://doi.org/10.1007/s12144-020-01121-4</div> Frostling-Henningsson, M. (2009). First-person shooter games as a way of connecting to people: "Brothers in blood." *CyberPsychology & Behavior, 12*(5), 557-562. https://doi.org/10.1089/cpb.2008.0345</div> Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin*, *121*(3), 355-370. https://doi.org/10.1111/1467-8721.00018</div> Herodotou, C., Kambouri, M., & Winters, N. (2014). Dispelling the myth of the socio-emotionally dissatisfied gamer. *Computers in Human Behavior, 32*, 23-31. https://doi.org/10.1016/j.chb.2013.10.054</div> Hills, P., & Argyle, M. (2002). The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, *33*(7), 1073-1082. https://doi.org/10.1016/S0191-8869(01)00213-6</div> House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, *241*(4865), 540-545. https://doi.org/10.1126/science.3399889</div> Huang, C. L., Yang, S. C., & Chen, A. S. (2015). Motivations and gratification in an online game: Relationships among players' self-esteem, self-concept, and interpersonal relationships. *Social Behavior and Personality: An International Journal, 43*(2), 193-203. https://doi.org/10.2224/sbp.2015.43.2.193</div> Kowert, R., & Oldmeadow, J. (2015). Playing for social comfort: Online video game play as a social accommodator for the insecurely attached. *Computers in Human Behavior, 53*, 556-566. https://doi.org/10.1016/j.chb.2014.05.004</div> Ladd, G. W., Kochenderfer, B. J., & Coleman, C. C. (1996). Friendship quality as a predictor of young children's early school adjustment. *Child Development*, *67*(3), 1103-1118. https://doi.org/10.1111/j.1467-8624.1996.tb01785.x</div> Lai, G., & Fung, K. Y. (2019). From online strangers to offline friends: A qualitative study of video game players in Hong Kong. *Media, Culture & Society*, 42(4), 483-501. https://doi.org/10.1177/0163443719853505</div> Mendelson, M. J., & Aboud, F. E. (1999). Measuring friendship quality in late adolescents and young adults: McGill Friendship Questionnaires. *Canadian Journal of Behavioural Science*, *31*(2), 130-132. https://doi.org/10.1037/h0087080</div> Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, *6*(1), 10-19.

Nicolaisen, M., & Thorsen, K. (2017). What are friends for? Friendships and loneliness over the lifespan—From 18 to 79 years. *The International Journal of Aging and Human Devel-*

opment, *84*(2), 126-158. https://doi.org/10.1111/j.1467-9280.1995.tb00298.x</div> Plummer, D. L., Allison, J., Stone, R. T., & Powell, L. (2016). Patterns of adult cross-racial friendships: A context for understanding contemporary race relations. *Cultural Diversity and Ethnic Minority Psychology, 22*(4), 479-494. https://doi.org/10.1037/cdp0000079</div> Rawlins, W. K. (1992). *Friendship matters: Communication, dialectics, and the life course.* New York, NY: Taylor & Francis.

Rice, R. E., Shepherd, A., Dutton, W. H., & Katz, J. E. (2007). Social interaction and the internet: A comparative analysis of surveys in the U.S. and Britain. In A. Joinson, K. McKenna, T. Postmes, & U.-D. Reips (Eds.), *The oxford handbook of internet psychology.* New York, NY: Oxford University Press, Inc.

Skovdal, M., & Ogutu, V. O. (2012). Coping with hardship through friendship: The importance of peer social capital among children affected by HIV in Kenya. *African Journal of AIDS Research*, *11*(3), 241-250. https://doi.org/10.2989/16085906.2012.734983</div> Tillmann-Healy, L. M. (2003). Friendship as method. *Qualitative Inquiry*, *9*(5), 729-749. https://doi.org/10.1177/1077800403254894</div> van der Horst, M., & Coffé, H. (2012). How friendship network characteristics influence subjective well-being. *Social Indicators Research*, *107*, 509-529. https://doi.org/10.1007/s11205-011-9861-2</div> World Happiness Report. (2012). Retrieved from https://worldhappiness.report/ed/2012/</div> Zhang, T., & Frederick, C. M. (2018, September). *Busting the myth of the non-social gamer: Comparing friendship quality between gamers and non-gamers* [Conference presentation abstract]. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting 62*(1), 746. https://doi.org/10.1177/1541931218621169</div>