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The effect of cyber-friends on loneliness and social anxiety: Differences between high and low self-evaluated physical attractiveness groups

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Abstract

This study examined the causal relationships between the number of cyber-friends participants had and their social anxiety or loneliness. We predicted that participants who gave low self-evaluations of physical attractiveness would be able to lower their social anxiety or reduce their loneliness through Internet-based interpersonal relationships. Also, such effects would be more prominent if the cyber-friends were of the opposite sex. A two-wave panel study was conducted with 178 Japanese undergraduate students (63 men and 115 women; mean age was 20.29). Results showed that for those who gave a low evaluation of their physical attractiveness, having a large number of cyber-friends lowered their social anxiety and reduced the loneliness felt in friendships. These effects differed by gender of the cyber-friends. In particular, for those who gave a low evaluation of their physical attractiveness, having a large number of cyber-friends of the same sex had a positive effect on social anxiety. In contrast, cyber-friends of the opposite sex had no effect on social anxiety, but had a complex effect upon loneliness. Namely, while a large number of cyber-friends of the opposite sex reduced the loneliness felt in friendships, it also heightened the loneliness felt in family relationships. Implications of these results for further research and practice are provided.
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Keywords: Cyber-relationships; Social anxiety; Loneliness; Physical attractiveness; Causal relationships

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1. Introduction

As the use of the Internet has spread, there are now more ways to establish interpersonal relationships. People who have never met each other can ''meet'' on the Internet and deepen their relationship through communication via Internet tools such as e-mail and chat rooms. These Internet-based friends are called ''cyber-friends''. Although there are some argument about the quality of relationships with these cyber-friends (Cummings, Butler, & Kraut, 2002; McKenna & Bargh, 2000), there have been several studies suggesting positive effects of cyber-friends. Such as a panel study suggesting that the number of cyber-friends has an effect on subjective well-being and social efficacy (Ando et al., 2004), and an experimental study which confirmed that interaction with cyber-friends had an effect of elevating the sociality of shy individuals (Sakamoto et al., 2002).

In this study, we examined what sort of people exhibited more conspicuous effects on their psychological health due to interaction with cyber-friends as evidenced in such prior studies. Below we will conduct a review of the prior studies regarding what sorts of people more easily reap the benefits of cyber-friendship, various theories on the properties of cyber-friendship, and the effects of cyber-friendship on psychological health and sociality.

1.1. The effect of cyber-friends on psychological health and sociality

Some have raised questions about the quality of cyber-friendships. For example, Kraut et al. (1998) conducted a longitudinal study and pointed out that a larger amount of Internet use caused heightened loneliness or depression. They speculated that such a negative consequence was indicated because the larger amount of Internet use caused an increase in the amount of time that the individuals spent on weak and low-quality interpersonal relationships with cyber-friends, and this in turn led to a decrease in the amount of quality face-to-face (FtF) communication with close family members or friends. However, in the follow-up study, Kraut et al. changed their opinion, stating that this negative effect disappeared as individuals got used to the Internet or as the operability of Internet tools improved. They then claimed that the Internet was an effective tool for maintaining and deepening relationships with family members, friends, and faraway relatives, and also had positive effects on individuals' psychological health (Kraut et al., 2002). Nevertheless, they maintained their pessimistic view toward the quality of cyber-relationships (Cummings et al., 2002).

Meanwhile, there have been some studies that reported that cyber-relationships sometimes develop into sound and intimate relationships, such as best friends or boyfriends/girlfriends (McKenna & Bargh, 2000; Parks & Floyd, 1996). Also, some have pointed out that it is easier to find friends of the opposite sex on the Internet than in real life (Parks & Roberts, 1998), and that more than a few Internet romances or Internet-generated romances have been reported (Gwinnell, 1998).

Furthermore, it has been indicated that cyber-relationships improve the skills necessary to maintain FtF interpersonal relationships. For example, Sakamoto et al. (2002) used an online game called a MUD (multi-user dungeon) to show that the Internet was an effective sociality training tool for shy individuals when they were forced to act as sociable individuals. In other words, the participants learned effective techniques and gained social efficacy through experiencing such relationships in Internet-based virtual space, and this experience was effective in improving their sociality in FtF situations.