Psychology Faculty Publications   Psychology

6-16-2012

Correlation between Facebook usage and loneliness and depression

Jasmine (Chi Man) Tang
College of Saint Benedict/Saint John's University, jasmine_0609@hotmail.com

Michael Livingston
College of Saint Benedict/Saint John's University, mlivingston@csbsju.edu

Follow this and additional works at: https://digitalcommons.csbsju.edu/psychology_pubs

Part of the Personality and Social Contexts Commons

Recommended Citation

Tang, J.C.M., & Livingston, M.G. (2012, June 16). Correlation between Facebook usage and loneliness and depression. Poster presented at The Hong Kong Psychological Society Annual Conference. Hong Kong.

Correlation between Facebook Usage and Loneliness and Depression

Jasmine (Chi Man) Tang & Michael Livingston, Ph. D.

College of Saint Benedict and Saint John's University

Abstract

Facebook has emerged into our society within the last couple years as a powerful social phenomenon. 11.5% of the world population are active users of Facebook while there is a serious lack of psychological theory relating to functions or effects of Facebook. Researchers began realizing the importance of investigating the usage of Facebook and how that might be related to different personality traits. However, not much research has been done on how Facebook use could be related to our social well-beings.

The current study aims to investigate how the use of Facebook influences loneliness and depression. The results showed that people with more Facebook friends tend to be less lonely. And the more time spent on Facebook predicts a higher level of loneliness and depression. Our results also revealed that there is no gender differences in total time spent on Facebook and number of Facebook friends. Further research on how Facebook users can be best benefited by Facebook without negatively influenced by it should be conducted. It is also hoped that research on other social networks will be carried out.

Introduction

In 2007, over 52 million people around the globe have visited Facebook (Tong, Van Der Heide, & Langwell, 2008). Facebook has begun drawing attention of researchers. Its structure has been analyzed (Papacharissa, 2009). Numerous researches have been done on analyzing who use Facebook (Zywica & Danowski, 2008). Recently, researchers have found that the number of friends on Facebook can predict the grey matter destiny in several brain regions (Kanai, Bahrami, Roylance, & Reese, 2011). The implication of such founding is striking.

People need companionship but not everyone is free all the time. Facebook provided us company at all time (Turkle, 2011). Yet, frequent Facebook users feel more connected and disconnected at the same time (Sheldon et al., 2011). And more than ten years ago, researchers have concluded that there is a positive correlation between the usage of Internet and depression and loneliness (Kraut et al., 1998). Tong et al. (2008) discovered that having an overabundance of Facebook friends would decrease ones social attractiveness. However, Ryan and Xenos (2011) have found that Facebook users tend to be less socially lonely than the non-users. In this study, I hypothesize that loneliness and depression are correlated with hours of Facebook use and number of friends, as well as number of friends the user actively interacts with.

## Method

Participants
- 257 participants, 58% female

Procedure & Materials
An online survey was given to all participants, which consists:

- **Questions which investigate the Facebook Usage of participants**– Questions related to gender, the time spent per day on Facebook, and number of Facebook friends

- **The UCLA Loneliness Scale (Version 3)**– 20 questions to assess loneliness

- **The Center for Epidemiologic Studies *Depression* Scale**– 20 questions to assess depression

Results

- Total number of hours per day on Facebook, $M = 2.78$, range: 0- 24.
- Total number of Facebook friends, $M = 552$, range: 0- 1851.
- A linear regression line was revealed for the graph for number of Facebook friends and loneliness, $R^2 = 0.04$, $F(1, 255) = 9.51$, $p = 0.002$
- A between small and medium effect size was revealed between number of Facebook friends and loneliness, $r = -.193$, $p = 0.002$.
- No significant results for number of Facebook friends and depression, $R^2 = 0.0054$, $F(1, 255) = 1.16$, $p = 0.283$.
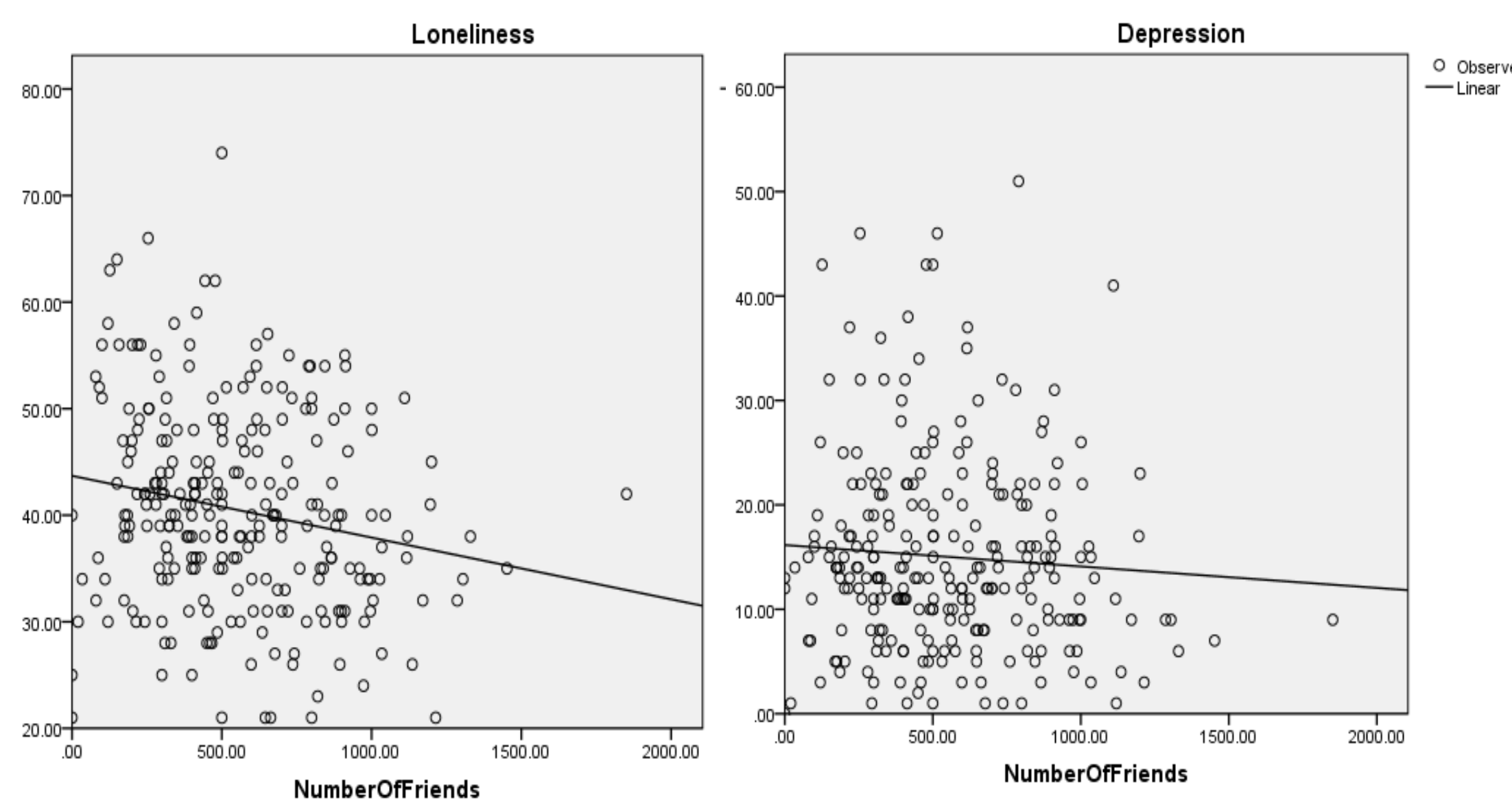
- A between small and medium effect size was revealed between total number of hours per day spending on Facebook and loneliness, $r = 0.16$, $p = 0.013$; total number of hours per day spending on Facebook and depression, $r = 0.20$, $p = 0.002$.

- A between small and medium effect size was revealed between total number of hours per day spending on Facebook without interacting with people and loneliness, $r = 0.16$, $p = 0.012$; total number of hours per day spending on Facebook without interacting with people and depression, $r = 0.18$, $p = 0.006$.
- A small effect size was revealed between the number of Facebook friends that one actively interacts with and loneliness, $r = -0.11$, $p = 0.069$.
- No significance was found between gender and total number of Facebook friends; gender and total number of hours per day spending on Facebook.

Discussion

Ryan and Xenos (2011) have found that Facebook users tend to be more extraverted. It is possible that people who are more extraverted tend to acquaint with more people in real life, which lead them to have more Facebook friends. And having more friends on Facebook might give ones the sense of belonging, which lowers their level of loneliness.

The results show that people who spend more time on Facebook tend to be lonelier and more depressed. This relationship may be attributed to the lack of face-to-face interactions that one could have, if he/ she did not spend as much time on Facebook.

References

Cacioppo, J. T., & Patrick, W. (2008). *Loneliness: Human nature and the need for social connection*. New York: W.W. Norton & Co.
Carr, N. G. (2010). *The shallows: What the Internet is doing to our brains*. New York: W.W. Norton.
Foer, J. S. (2005). *Extremely loud & incredibly close*. Boston, Mass: Mariner Books.
Janet, M. (1999). The Relationship Between Loneliness and Internet Use and Abuse. *CyberPsychology & Behavior, 2*, 431-439.
Kanai, R., Bahrami, B., Roylance, R. & Rees, G. (2011). Online social network size is reflected in human brain structure. *The Royal Society*, Published online before print October 19, 2011.
Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being?. *American Psychologist, 53*, 1017-1031.
Papacharissi, Z. (2009). The virtual geographies of social networks: A comparative analysis of Facebook, Linkedin and ASmallWorld. *New Media & Society, 11*, 199-220.
Radloff, L. S. (1977). The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Applied Psychological Measurement, 1*, 3, 385-401.
Russel, D. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*, 20-40.
Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Computers in Human Behavior, 27*, 1658-1664.
Shaw, L. H., & Gant, L. M. (2002). In defense of the Internet: The relationship between Internet communication and depression, loneliness, self-esteem, and perceived social support. *Cyberpsychology & Behavior, 5* 157-171.
Sheldon, K. M., Abad, N., & Hinsch, C. (2011). A two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it. *Psychology of Popular Media Culture, 1*, 2-15.
Tong, S., Van Der Heide, B., Langwell, L., & Walther, J. B. (2008). Too much of a good thing? The relationship between number of friends and interpersonal impressions on Facebook. *Journal of Computer-Mediated Communication, 13*, 531-549.
Turkle, S. (2011). *Alone Together: Why we expect more from technology and less from each other?*. Basic Books: New York.
Weeks, D. G., Michela, J. L., Peplau, L. A., & Bragg, M. E. (1980). Relation between loneliness and depression: A structural equation analysis. *Journal Of Personality And Social Psychology, 39*, 1238-1244.
Zywica, J., & Danowski, J. (2008). The faces of facebookers: Investigating social enhancement and social compensation hypotheses; predicting Facebook™ and offline popularity from sociability and self-esteem, and mapping the meanings of popularity with semantic networks. *Journal of Computer-Mediated Communication, 14*, 1-34.