

Association between Social Media Use and Depression among Saudi Population.

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ABSTRACT

Background: Social media (SM) use is increasing among young adults in Saudi Arabia, and it's becoming an integral part of everyday life. It is thought that social media use is associated with certain behavioral changes, and some authors have shown concerns about its possible effect on mental health. In this study, we investigated the relationship between social media use and depression indicators among adult population in Saudi Arabia. **Methods:** A total of 618 adults were surveyed about SM and depression with an age range of 16 to 40 years. SM use was assessed by self-reported total number of hours per day spent on social networking. And depression was assessed using Beck Depression Inventory (BDI-II) scale. Also participants were asked to provide data on personal and family history of psychiatric disorders, drug abuse, and demographic data. Descriptive frequencies, Chi-squared tests and ordered logistic regressions were performed on data for analysis using SPSS software version 20.0. **Results:** Average daily time spent on social networking was 4 hours with standard deviation (SD) of 1.05 hour. Twitter, Snapchat and whatsapp were the most visited social networking applications by participants (85.7%, 74.2% and 67. 2%, respectively). BDI-II score indicated no depression in 572 participants, mild depression in 40 participants, and moderate to severe depression in 4 participants. Compared to those with lowest total hours per day spent on SM, participants with highest total hours per day spent on SM had significantly higher scores of BDI-II (AOR = 1.36, 95% CI = 1.09–2.42). **Conclusion:** Our results indicate that frequent use of social media is related to depression. Additional research is required to determine the possible causal nature of this relationship.

Keywords: Social media, internet use, communications media, depression, young adult

INTRODUCTION

Nowadays social networking sites have become an integral part of everyday life, the mental health effects of social media should have more attention. A study of 513 college students used to assess the relationship between Facebook interaction and psychological distress revealed that frequent Facebook interaction is associated with greater distress.^[1] Another cross sectional observational study on 336 high school students was conducted to test the relationship between level of Internet addiction and depressive symptoms, 1Reveal that internet use and level of internet addiction are positively correlated with depressive symptoms, however no such relationship was found between the time spent on social networking sites and depression, or between depression symptoms and social

networking - related activities. These findings suggest that social networking sites are not related to depression, and that the true reason for the relationship between Internet addiction and depressive symptoms may be found in other aspects of Internet use, which need to be explored.

People often compare themselves with others, and the social comparison theory states that comparing with others can influence an individual's evaluation of oneself, self-esteem/self-confidence, and efficient decision-making, and that people compare with others when they have information of others. The popularity of social network sites results in many people being exposed to information of others, meaning that people are likely to frequently engage in social comparison behavior. An online survey, examining social comparison behavior on social network sites, completed by 199 college students reveal that an individual's personality characteristics, such as social comparison orientation, self-esteem, self-uncertainty, and self-consciousness, influence the person's social comparison frequency on social media. Results of this study suggest that there is a positive relationship between intensity of social networking and social comparison frequency.^[2]

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Because social networking is relatively new phenomenon, very few research studies so far have studied its impact on psychological health. Social networks use has been associated with changes in one's self-esteem,^[3] and some authors expressed concerns about its possible detrimental effect to mental health, especially those issues related to the quality of social interactions.^[4]

Having in mind the observations and opinions of other studies, we conducted this study because of its scientific importance to investigate the relationship between social networking and depression indicators in adolescent population in Saudi Arabia.

MATERIALS AND METHODS

An observational, cross-sectional, population-based study was conducted during 2017 on general population in Saudi Arabia. The study sample was determined based on 95% confidence interval for the municipality of Saudi population. A total of 618 adults with an average age of 20.07 years (SD=0.39 years), were surveyed about SM and depression using an anonymous, structured questionnaire and the Beck Depression Inventory scale (BDI-II).

SM use was assessed by self-reported total number of hours per day spent on social networking. And depression was assessed using Beck Depression Inventory (BDI-II) scale. BDI-II is a 21-question multiple-choice self-report inventory, in which each answer is given a score between 0 and 3. After the test is finished, the total score is interpreted as the following: 0–9 minimal depression, 10–18 mild depression, 19–29 moderate depression and 30–63 severe depression.

Also participants were asked to provide data on personal and family history of psychiatric disorders, drug abuse, and demographic data. All subjects have been informed about the objective of the study.

Statistical analysis was done using. Descriptive frequencies, Chi-squared tests and ordered logistic regressions were performed on data for analysis using SPSS software version 20.0.

RESULTS

A total of 618 adults with an average age of 20.07 years (SD=0.39 years) were surveyed. About 28.8% were male and 71.2% were female. Educational background was as follows: 25.2% had a high school degree or less, 74.6% had an associate's or bachelor's degree, and 0.2% were illiterate.

Average daily time spent on social networking was 4 hours with standard deviation (SD= 1.05 hour). Twitter, Snapchat and whatsapp were the most visited social networking applications by participants (85.7%, 74.2% and 67. 2%, respectively). Average BDI-II score was 8.19 (SD=5.86). BDI-II score indicated no depression in 503 participants, mild

depression in 100 participants, and moderate to severe depression in 15 participants [Figure 1].

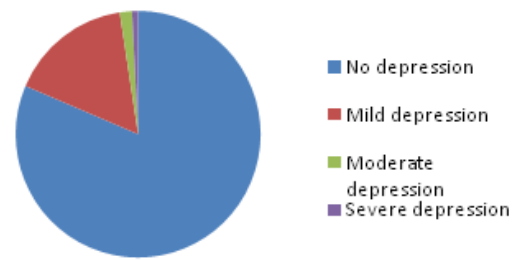


Figure 1: BDI-II score interpretation in the participants

Statistically significant positive correlation ($R=0.16$, $p<0.05$) was found between BDI-II score and the time spent on social networking. The BDI-II score increased as the time spent on social networks increased and vice versa. Compared to those with lowest total hours per day spent on SM, participants with highest total hours per day spent on SM had significantly higher scores of BDI-II (AOR = 1.36, 95% CI = 1.09–2.42). No statistically significant difference was observed between males and females in social networking.

DISCUSSION

As noted in other studies, our findings suggest that increased level of depression is associated with prolonged internet use. This suggests that clinical depression is significantly associated with increased levels of personal Internet use. There is already established evidence that frequent social networking is associated with depressive symptoms. But what is not clear from these data is which comes first: are depressed people drawn to the Internet, or does excessive Internet use. Some studies found that social networking sites such as Facebook is related to the self-esteem issues of an individual. According to these studies, caring about one's profile or others' profiles, frequent profile editing and other activities might have a positive effect on self-confidence.^[3] However, these results would be contradictory to the accepted Objective Self-Awareness (OSA) theory that implies that exposure to stimuli such as mirror, photo, and autobiographical data could lead to increased lower self-esteem as a result of increased awareness of oneself's internal and social standards.^[5] Therefore, low self-esteem, poor motivation, fear of rejection, and the need for approval associated with depression symptoms contribute to increased Internet use, as prior research indicated that the interactive capabilities available on the Internet were found to be most addictive.^[8] It is assumed that depressed individuals are drawn to network communication

because of the anonymous cover granted to them by talking with others through fictitious handles, which helps them overcome real-life interpersonal difficulties. A study found that computer-mediated communication weakens social influence by the absence of such nonverbal behavior as talking in the head set, speaking loudly, staring, touching, and gesturing. Therefore, the disappearance of facial expression, voice inflection, and eye contact makes electronic communication less threatening, thereby helping the depressive to overcome the initial awkwardness and intimidation in meeting and speaking with others.^[9] This anonymous two-way talk also helps depressed people feel comfortable sharing ideas.

Some studies, had assume physical activity is inversely associated with depression among adolescents.^[6] This maybe one of the possible explanations for the relationship we observed in our study. High level of online social networking would naturally lead to less time for outdoor physical activities. A study has reported that physical activity and screen viewing are associated with clinical depression risk in older female population.^[7]

After all, these findings, however, do not clearly indicate whether depression preceded the development of such excessive internet use or if it was a consequence. Yung suggested that withdrawal from significant real-life relationships is a consequence of excessive use of social network.^[10] Therefore, the possibility exists that increased levels of social isolation subsequent to excessive time spent in front of a computer may result in increased depression rather than be a cause of such Internet overuse. Therefore, further experimentation with a more comprehensive level of analysis is necessary to examine cause and effect. Data collection should also include patients in treatment to eliminate the methodological limitations of an on-line survey and to improve the clinical utility of the information gathered.

CONCLUSION

Our findings have added to the body of evidence on the link between depression and social networking. Furthermore, data of this study adds weight to the recent suggestion that excessive internet use and social networking should be taken seriously as a distinct psychiatric construct. It is important that this issue receives adequate attention.

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