Relationship of Loneliness and Social Media Addiction with Gender Differences Among Undergraduate Students and Psychiatric Rehabilitation

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ABSTRACT
This study aimed to uncover loneliness and its association with social media addiction among college students and suggest psychiatric rehabilitation interventions. The sample consisted of 50 male and 50 female college students. The scales used were the De Jong Gierveld Loneliness Scale and the Tutgun-Ünal and Deniz Social Media Addiction Scale, which consisted of 11 and 14 items, respectively. Statistical analysis was performed using SPSS (t-test). We examined three hypotheses. The first hypothesis showed a positive correlation between social media addiction and loneliness. The second hypothesis could not be confirmed. The second hypothesis stated that female students would score higher on the Social Media Addiction Scale than male students. The third hypothesis could also not be confirmed. The third hypothesis stated that female students would score higher on the De Jong Gierveld Loneliness Scale than male students. The statistical analysis showed that there is a positive and weak correlation between loneliness and social media addiction and that female students would not score high on the social media addiction and loneliness scales compared to male students. With these results, one of the hypotheses was confirmed and two of them were not supported. It was also suggested that psychiatric rehabilitation programs should be more student-centered, regardless of gender.

KEYWORDS
loneliness, social media addiction, rehabilitation measures

INTRODUCTION

Computerized systems that facilitate the sharing of knowledge, ideas, and concepts via online communities and networks are called “social media.” Social media users can share anything on the internet, including private information, documents, images, and videos. Users interact with social media via web-based apps or software on a computer, tablet, or smartphone.

There are around 4.5 billion social media users worldwide. Some of the most popular social media platforms are YouTube, Instagram, TikTok, Facebook, and Twitter. Personalized accounts and user-generated material are widespread on social media. Originally, social media was used for personal communication with friends and family, but businesses have quickly realized how popular it is for connecting with customers. The power of social media lies in its ability to connect and share information with a large number of people at once, anywhere in the world (Dollarhide et al., 2021). Relevant research indicates that smartphone use is on the rise, that smartphone addiction has emerged, and that people are becoming more and more fixated on the concept of phubbing. Phubbing is among the negative effects of technology. Phubbing is now being studied scientifically as a problem resulting from excessive and problematic phone use. Phubbing is thought to be a multifaceted disorder that affects students in many ways, including depression, social isolation, mental health disabilities, learning disabilities, low academic achievement, and loneliness (Valles, 1991; Talan et al., 2024). These upsetting emotions then result in decreased subjective health (Tijhuis et al., 1999), decreased quality of life (Jakobsson and Hallberg, 2005), disability...
Loneliness is a psychological state, although most definitions refer to the experience of feeling alone or lonely in the world. Lonely people have the feeling of being empty, alone, and unwanted. Lonely people sometimes crave human contact but find it difficult to make acquaintances because of their psychological state. At some point in life, everyone experiences loneliness, but it is a complicated and distinct human emotion. Since there is no single etiology for this potentially harmful mental illness, its prevention and treatment also vary widely. A lonely older adult whose spouse has recently passed away has different needs than a lonely child who finds it difficult to make friends at school. Studies have shown that loneliness is linked to depression, introversion, poor social skills, and social isolation. It is widely recognized among experts that loneliness is not always related to being alone. Rather, loneliness affects your mental state when you feel alone and isolated. For example, a student may feel lonely despite being surrounded by friends and roommates. A soldier just beginning his military career may feel lonely after being deployed to a distant country, even though he is constantly surrounded by other soldiers (Cherry, 2022).

This study is focused on investigating the relationship between social media addiction and loneliness among college students, with a particular emphasis on disparities between male and female students. One hundred students, comprising an equal number of male and female participants, participated in the study. The De Jong Gierveld Loneliness Scale and the Tutgun-Ünal and Deniz 14-item Social Media Addiction Scale were employed. Among the three hypotheses examined, only one was supported by the SPSS data, which showed a weak positive association between social media addiction and loneliness. The hypotheses that female students are more dependent on social media and that female students are more isolated were not supported by the SPSS data.

Problem statement

Gender-specific evaluations are still scarce, although social media addiction and loneliness are increasingly common among college students. The purpose of this study is to examine loneliness and its association with social media addiction among college students, focusing on gender differences between male and female students. The De Jong Gierveld Loneliness Scale (De Jong Gierveld and Van Tilburg, 2010) and the Tutgun-Ünal and Deniz (2015) Social Media Addiction Scale, consisting of 11 and 14 items, respectively, were used to examine the complex interaction between social media addiction and loneliness. By exploring this uncharted area, the study hopes to gain a thorough understanding of loneliness patterns and social media behaviors, opening the door for specialized interventions and support systems designed to meet the particular requirements of college students.

Research questions and significance of study

- Is there a connection between loneliness and social media addiction?
- Are there differences in the level of social media addiction between male and female undergraduate students?
- Do female students have higher scores on the loneliness scale than male students?

The purpose of this study is to investigate the relationship between loneliness and social media addiction. The study provides details on loneliness and social media addiction...
in both male and female students. Additionally, it examines whether female students outperform male students on the De Jong Gierveld Loneliness Scale and the Social Media Addiction Scale. To the best of our knowledge, this is the first time this type of research has been conducted on college students. This study will also show that loneliness is an important determinant of social media addiction. Our study will be essential and valuable as it provides a framework for previous studies among male and female college students. It explains the extent of social media addiction among male and female college students and also finds that there is a strong positive correlation between social media addiction and loneliness. It also explains whether females suffer more from social media addiction and loneliness and suggests appropriate rehabilitation interventions.

Research gap

The currently available literature has only explored the relationship between college students’ addiction to social media and their loneliness. However, it is still unclear whether loneliness is more common among female college students than male students or whether there are differences in the degree of social media addiction between genders. Gender-specific correlations that have not yet been investigated lead to a large study gap. The present study therefore attempts to fill this gap by examining possible gender variations in the relationship between social media addiction and loneliness among college students.

METHODOLOGY

Objectives of the research

- To examine loneliness and its relationship to social media addiction among college students using the De Jong Gierveld Loneliness Scale and the Tutgun-Ünal and Deniz Social Media Addiction Scale
- To identify gender-specific differences in loneliness and social media addiction

Hypotheses

- A positive relationship exists between social media addiction and loneliness.
- Female students will score higher on the Social Media Addiction Scale than male students.
- Female students will score higher on the De Jong Gierveld Loneliness Scale than male students.

Instrumentation

Demographic data sheet

The demographic data sheet includes different factors such as name, age, gender, qualification, and name of the institution.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Gender</th>
<th>Students (n)</th>
<th>Total (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

De Jong Gierveld Loneliness Scale

Tijhuis et al., 1999; De Jong Gierveld and Van Tilburg, 2010 is credited with creating the loneliness scale. It has been demonstrated that the 11th item of the De Jong Gierveld Loneliness Scale is an accurate and trustable tool for measuring general emotional and social loneliness. Answers on the 2nd, 3rd, 5th, 6th, 9th, and 10th items, and the emotional loneliness score are both neutral and positive. The social loneliness score is missing on the 1st, 4th, 7th, 8th, and 11th items, while the emotional loneliness score is missing on the 2nd, 3rd, 5th, 6th, 9th, and 10th items. The neutral and negative answers are on the 1st, 4th, 7th, 8th, and 11th items. The emotional loneliness score and the social loneliness score are added together to get the overall loneliness score. Only when the missing emotional loneliness score is equal to 0 is the emotional loneliness score considered legitimate. Only when the missing social loneliness score is equal to 0 is the social loneliness score considered genuine. Only when the sum of the missing social and emotional loneliness scores is equal to 0 or 1 is the overall loneliness score considered valid. There are four categories for the overall loneliness score: not lonely (score 0, 1, or 2), moderately lonely (score 3-8), very lonely (score 9 or 10), and very severely lonely (score 11).

Social Media Addiction Scale

The scale for social media addiction was established in 2015 by Tutgun-Ünal and Deniz. The test consists of 14 statements, to which respondents must respond on a Likert scale with 5 possible answers—strongly agree, agree, disagree, or strongly disagree—scoring 5, 4, 3, 2, and 1, respectively. The scale has only positive items on it. While 29 is the lowest possible score on the scale, 70 is the highest. The participant’s perception of himself as a social media addict is shown by the higher score.

Sampling

Students from college made up our sampling frame. We took 100 people as sample (N = 100). Half of them (n = 50) were undergraduate male students and half of them (n = 50) were undergraduate female students (Table 1). A purposive sampling technique was used.

Sampling population

Government colleges in Nowshera, KPK, were selected for the data collection.
Procedure

The data for the study were obtained from government colleges in Nowshera. Participants were informed about the purpose of the research and informed consent was obtained. They were assured of confidentiality. They were asked to fill out the loneliness and social media addiction questionnaires honestly. Any incomplete information or data were not added to the study due to the falsehood of outcomes. SPSS (IBM corporation) was used as a statistical tool for data analysis.

RESULTS

The validity of the scales is 100%, which means that the scales are valid. Cronbach’s alpha is 0.70 for the De Jong Gierveld Loneliness Scale and 0.895 for the Tutgun-Ünal and Deniz Social Media Addiction Scale (Tables 2 and 3). The scales are therefore good. The Pearson correlation between loneliness and social media addiction is 0.308. The hypothesis that there is a positive correlation between social media addiction and loneliness has been proven to be correct. The relationship between social media addiction and loneliness is marginally positive. The hypothesis that female students score higher on the Social Media Addiction Scale than male students is not supported by the fact that female students did not score higher on the Social Media Addiction Scale. The other hypothesis that female students score higher on the De Jong Gierveld Loneliness Scale than male students is also disproved, as female students did not score higher on the De Jong Gierveld Loneliness Scale. One of the hypotheses was therefore proven and two were refuted.

Pearson correlation

The Pearson correlation gives the value 0.308 (Table 4), which shows a weak but positive correlation between loneliness and social media addiction.

\( t \)-Test

**Independent sample test**

Table 5 indicates that the mean value of the De Jong Gierveld scale for male students is 20.29 with a standard deviation of 4.467 and for female students it is 20.46 with a standard deviation of 5.331. These results showed that there is no notable difference based on gender. The \( T \), \( P \), and Cohen’s \( d \) values for the De Jong Gierveld Loneliness Scale are 0.468, 0.641, and 0.004, respectively.

Table 6 indicates that the mean value of the Social Media Addiction Scale for male students is 40.06 with a standard deviation of 8.302, and for female students, it is 40.02 with a standard deviation of 8.302. These results showed that there is no notable difference based on gender. The \( T \), \( P \), and Cohen’s \( d \) values for the Social Media Addiction Scale are 0.024, 0.981, and 0.093, respectively.

DISCUSSION

The main purpose of the study was to find out whether there is a positive or negative correlation between loneliness and...
social media addiction. It was also to determine that female students scored higher on the loneliness and social media addiction scales than male students. The sample was limited to the Nowshera region, KPK, Pakistan.

A sample of 100 ($N = 100$) was taken for this research. The number of male and female students was the same ($n = 50$) for each group. The correlational research method was used to investigate the association between the variables. Two scales were used to measure loneliness and social media addiction of the two groups.

Table 1 shows the distribution of male and female students. Table 2 represents the reliability statistics and Cronbach’s alpha value for the De Jong Gierveld Loneliness Scale. Table 3 represents the reliability statistics and Cronbach’s alpha value for the Tutgun-Únal and Deniz Social Media Addiction Scale. Table 4 represents the Pearson correlation between two variables which is 0.308. The results indicate that there is a weak positive relationship between social media addiction and loneliness. Table 5 represents the difference in mean and standard deviation among male and female students, indicating that there is no significant difference based on gender on the De Jong Gierveld Loneliness Scale. Table 6 represents the difference in mean and standard deviation among male and female students, indicating that there is no notable difference based on gender on the Tutgun-Únal and Deniz Social Media Addiction Scale. Several other studies have also supported our hypothesis.

Addiction to social media has a devastating impact on people’s everyday lives alongside their physical and mental well-being and the same leads to symptoms like loneliness. This study demonstrates how common social media addiction and loneliness are among Princess Nourah University medical students as well as how they relate to one another. Princess Nourah University medical students participated in a cross-sectional study. The study employed a multi-stage technique to conduct sampling. The sample comprised 302 people. A self-administered paper questionnaire served as the instrument. Out of the 302 individuals, 225 (74%) reported having a social media addiction, while around 146 (48%) reported feeling lonely based on their self-reported feelings. The scores for social media addiction and loneliness showed a weak but statistically significant correlation ($r = 0.361; P = 0.001$). A significant correlation was found between the high incidence of self-reported social media addiction in our study and the data. It is possible to develop and implement programs that educate people about the risks of loneliness and the impacts of social media use (Bakry et al., 2022).

The second hypothesis was that females would score high on the Social Media Addiction Scale as compared to males but this hypothesis was not supported as no significant difference was found between male and female students. This rejection of the hypothesis is supported by several other studies. However, a more recent study did suggest that college students are likely to have a social media addiction. Further studies can be carried out by examining the connections between self-esteem, life satisfaction, and social media addiction and the potential for gender disparities in relationships. This research aimed to improve university students’ understanding of social media addiction. The Social Media Addiction Scale, Rosenberg Self-Esteem Scale, and Life Satisfaction Scale were completed by 288 university students from the Faculty of Educational Studies at University Putra Malaysia (UPM), with 103 male and 185 female participants. The findings indicated that 64% of the variance in social media addiction was accounted for by self-esteem and life happiness. The likelihood of social media addiction was significantly influenced by life satisfaction. In contrast, there were no appreciable variations in life satisfaction or self-esteem, and neither of these variables showed any correlation with addiction to social media. In addition, men were significantly more addicted to social media than women. In addition, the statistically notable differences between the variables may assist predict students’ degrees of social media addiction. Clinicians may find it beneficial to have a better grasp of gender disparities to tailor appropriate therapy in light of these findings. The outcomes of this research were gathered from university students in Malaysia, and any potential generalization to other populations needs to be confirmed by other research (Xuan and Amat, 2021).

The third hypothesis was that female students would score high on the De Jong Gierveld Loneliness Scale as compared to male students. This hypothesis was also not supported. The results showed that male students also experience loneliness at a level comparable to their female counterparts or even more. Studies based on gender show significant results that males suffer from loneliness due to different reasons mostly due to their traditional gender role in society such as taking care of family, difficult jobs, and facing financial issues. Though much research has been conducted on loneliness in old age, few have examined the differences in correlations between genders in this domain. Thus, the gender disparities in the correlates of loneliness among older adults living in communities were examined. The study was a secondary analysis of data from a parent study that involved community-dwelling Koreans aged ≥65 years. Loneliness was measured using the 20-item Revised University of California Los Angeles Loneliness Scale. Among the potential associations were variables relating to society, health, and demographics. Different multivariate hierarchical regression analyses were conducted based on gender. Following correction for social, health, and demographic variables, men were shown to be more likely than women to experience loneliness. It was found that loneliness in men was adversely correlated with marriage and having a social network of familial contacts, but not in women. Loneliness was negatively correlated with both having a social network of friends and taking part in a variety of community activities, for both men and women. Having a family and being married might help build a social network that helps reduce loneliness as people age, especially for men. This study highlights how important it is to consider gender differences when developing strategies to prevent and manage loneliness in old age (Kim and Lee, 2022). Since the effects of loneliness vary with age, the recommended rehabilitation program should be different. Depression and delusional disorders are the two main mental disorders that lead to disabilities in middle age and adolescence. Listening and understanding can be an effective remedy for depression. People with depression often judge themselves harshly and find fault with everything they do. Remind them of their positive qualities and how much they mean to you and others.
Second, research shows that psychotherapy in conjunction with antipsychotic medication is the most effective form of treatment for delusions.

CONCLUSION

This study aimed to investigate loneliness and its association with social media addiction among college students and suggest psychiatric rehabilitation interventions. The sample consisted of 50 male and 50 female college students. The scales used were the De Jong Gierveld Loneliness Scale and the Tutgun-Unal and Deniz Social Media Addiction Scale, which consisted of 11 and 14 items, respectively. Statistical analysis was performed using SPSS (t-test). We examined three hypotheses. The first hypothesis showed a positive correlation between social media addiction and loneliness. The second hypothesis that female students would score higher on the Social Media Addiction Scale and the third that female students would score higher on the De Jong Gierveld Loneliness Scale than male students could not be confirmed. Therefore, we concluded that our study is not gender specific and that female students did not score high on the social media addiction and loneliness scales compared to male students. A recommended psychological rehabilitation program should be implemented considering the extent of the discomfort a person reports. In case of severe discomfort (loneliness), the individual should be referred to professionals to seek treatment. It has also been suggested that psychological rehabilitation programs should be more student-centered, regardless of gender. Since no higher correlation between the mentioned loneliness was found in our study, the effect may not be serious. However, this is only an isolated study. This could be different in other areas and studies. Therefore, further studies in this area are recommended and an appropriate rehabilitation program should be designed based on the results. For this purpose, the help of trained psychologists can be sought to minimize the side effects of abuse and help youngsters improve their quality of life.

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