RESEARCH ARTICLE

# Investigating the Role of Social Anxiety and Feeling of Perceived Loneliness in Predicting Facebook Addiction Among Students of Bamyan University- Afghanistan

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## ABSTRACT

Online social networks have changed into the most known tool of social communication in recent years, and studies have shown that excessive use and especially addiction to it can have destructive effects on people's social and professional life. This research was conducted to investigate the role of social anxiety and feeling of perceived loneliness in predicting Facebook addiction among Bayman University students due to a lack of prior studies in identifying and introducing psychological factors predicting addiction to online social networks, especially Facebook. About 360 students were selected among online social networks (Facebook) in 2024 as a correlational design using cluster sampling method and were evaluated using the short form of social-emotional loneliness scale for adults, and social anxiety. Data was analyzed by stepwise multiple regression analysis. The results showed a significant relationship between the feeling of perceived loneliness, social anxiety, and Facebook addiction. In total, physiological signs, feeling of social loneliness, social avoidance, and social anxiety were identified as the best predictors of addiction to online social networks. According to this research, the study concludes that feeling of perceived loneliness and social anxiety can predict Facebook addiction.

## ARTICLE INFO

## Introduction

Humans are inherently social, and their survival relies on effective communication. The rise of social networks has significantly transformed interaction styles, most notably through the widespread use of online platforms (Raacke & Bonds - Raacke, 2008).

In recent years, platforms like Facebook, Instagram, WhatsApp, and Telegram have attracted large global audiences, with millions of users creating profiles. Facebook, in particular, remains one of the most popular social communication tools and is among the top visited websites worldwide. It got the first rank among other social networks by having about 1.02 billion users (Sheldon, 2013), and 584 million people use Facebook daily on average (Argyris v., et all, 2015).

Facebook, despite its benefits, can have negative effects similar to addiction. Users may excessively engage with Facebook, spending increasing amounts of time and mental energy without meaningful outcomes. This compulsive use, known as Facebook addiction, disrupts daily social functioning and is a common behavioral problem characterized by excessive involvement in Facebook activities (Ansroudi, E., Hoseinian, S., Salehi, F.,2013).

According to American clinical psychologists, Facebook addiction (FAD) is characterized by behaviors similar to other addictions, including neglecting work, mood swings, tolerance, and withdrawal symptoms. Addicted users often ignore their personal lives, feel a constant urge to use Facebook, and engage in social escapism. They may use defensive mechanisms to hide

their addiction, lose control over their usage, and experience diminishing pleasure over time. These signs reflect a compulsive pattern that disrupts daily functioning and resembles classic addiction symptoms (Atashpour, S.H., Jalali, D. & Asadian, H., quoted by Zareh Mahzabiyeh, Sama, Omar, Bulang, and Kamarudin, 2014).

One of the harmful effects of excessive use of online social networks is the emergence of mental disorders including social anxiety and feeling of perceived loneliness in the person .Perceived loneliness is a common issue in modern societies, influenced by personality and situational factors, and affects people of all races, genders, ages, and cultures. (Rokach & Neto, 2005).

Perceived loneliness arises from a gap between a person's ideal and actual relationships. According to Peplau and Perlman (1982), most researchers agree on three key points: loneliness results from deficiencies in social relationships (either in quantity or quality), it is a subjective experience distinct from objective isolation, and it is unpleasant and distressing .In contrast, social anxiety is a prevalent chronic anxiety disorder with a lifetime prevalence of about 8–13% (Iverach & Rapee, 2014; Tulbure, 2011).

People with social anxiety disorder experience intense fear of social or performance situations due to worries about being embarrassed, ashamed, rejected, humiliated, looking foolish, being the center of attention, or negatively judged by others (Fang, Sawyer, Asnaani & Hofmann, 2013).

The most popular fear-inducing situations can be summarized as meeting new people, speaking in public, speaking with peers, classroom presentations, social activities, and interacting with others. Since sufferers have negative and distorted thoughts and images of themselves in the presence of people, they try to stay away from places and social situations that expose them to the risk of being reviewed, humiliated, or negatively evaluated by others to solve their problem (Erwin, Turk, Heimberg, Fresco & Hantula, 2004; Beirami, M., Movahedi, Y. & Movahedi, M. 2014).

This study aims to conduct research by considering the mentioned points to investigate the role of social anxiety and feeling of perceived loneliness in predicting Facebook addiction among students of Bamyan University to determine whether social anxiety can predict Facebook addiction among students of Bamyan University or not. In other words, whether students who are addicted to social networks now or excessively use them have had mental disorders such as social anxiety or feeling of loneliness in the past or not? It is tried in this research to determine some relevant concepts to social anxiety, feeling of perceived loneliness, and Facebook addiction in addition to using general concepts and simple phrases as every reader can use them.

## Methodology

### Research design

This research is correlational which studies the relationship between social anxiety and feeling of perceived loneliness with Facebook addiction among students of Bamyan University. Therefore, the subjects were selected, Once the data collection instruments were prepared, they were administered to the participants. The results obtained from the scales were analyzed.

### Statistical population, sample, and sampling method

The statistical population includes all students of Bamyan University who studied there in 2024. Among them, 360 people were selected as a statistical sample using the Cochran formula. Finally, 350 scales were gathered and due to incomplete responses,10 scales were not gathered. The sampling method in this research was a multi-stage cluster. Therefore, first, 4 out of 7 faculties from Bamyan University were selected as a cluster, and then 2 faculties were selected. From each faculty 3 departments were selected as a cluster, then from each department 3classes were selected as a cluster. Finally, from each class 20 students were selected. In the last step, 360 students were selected as a statistical sample in Bamyan University  and the scales were distributed among their students.

### Research tools

### Bergen Social Networks Addiction Scale

This scale has 18 questions whose scoring is based on a five-point Likert spectrum from very rarely (score 1) to often (score 5). Higher scores indicate more addiction to social networks. Anderson et al. (2012) reported Cronbach's alpha coefficient of 0.83 and the retest coefficient was 0.82 after three weeks. Cronbach's alpha coefficient in this research was 0.94 to study the reliability of this scale.

### The short-form emotional-social feeling of loneliness scale for adults

This scale was designed and prepared by DiTommaso, Brannen, & Best, (2004) based on the Veys division. This scale includes 15 items and 3 subscales of romantic

loneliness (items 3, 6, 8, and 10), family (items 2, 4, 7, 11 and 14) and social (items 1, 5, 9, 12) and 13), each of which has assigned five items of the scale. In front of each item, there is a range of 5 points from completely disagree (1 point) to completely agree (5 points). All the items, except items 14 and 15, are scored in a reverse way, and getting a higher score in each of the dimensions of this scale shows the higher feeling of loneliness in that dimension.

The authors of this scale (DiTommaso, Brannen, & Best, 2004) have reported the Cronbach's alpha coefficient of the whole scale between 0.87 and 0.90, which indicates the appropriate internal consistency of the scale. They reported a significant correlation between the subscales of SELSA_S with the whole score of the feeling of loneliness scale and sub-scales of attachment perception scales. This significant correlation shows the sufficient simultaneous, discriminant, and convergent validity of this scale. In Jokar and Salimi's (2011) research, confirmatory factor analysis results showed that the three-factor structure of SELDA_S validity is a proper fitting factor with data. Moreover, alpha coefficients for romantic, social, and family feeling of loneliness were reported as 0.92, 0.84, and 0.78, respectively. The Cronbach's alpha coefficient for this scale in this research was calculated as 0.87.

Conor's Social Anxiety Scale

This questionnaire was scored by Connor et al. (2000) having 17 items based on the Likert Scale from 0 to 5. Moreover, the sub-scales of phobia (1, 3, 5, 10, 14, 15), avoidance (4, 6, 8, 9, 11, 12, 16), and physiological signs (2, 7, 13, 17) to assess the level of social phobia. This scale has the scientific advantages of being short, simple, and easy to score. With its stable psychometric properties, this tool can be used as a reliable tool to measure the severity of social anxiety signs, as a screening tool, and to test the response to treatment. In addition, it can provide different effective treatments with different efficiencies. The validity and reliability of this scale were confirmed in previous studies. Its Iranian-edited version has been also used in various studies. The reliability of this scale by retest method in groups with detected social phobia was 0.78 to 0.89 and internal consistency with alpha coefficient in the normal group was reported 0.94 for the whole scale. Another research reported the alpha coefficient of the scale of 0.82 in the Iranian clinical sample in the first half and 0.76 in the second half. It also reported a Spearman-Brown correlation coefficient of 0.91 (Bruwer B., Emsley R., Kidd M., Lochner C. & Seedat S., 2008). Cronbach's alpha coefficient to examine to reliability of this scale was calculated as 0.91.

## Results

The descriptive, mean, and standard deviation indexes of this research variables have been reported in Table 1.

**Table 1: descriptive indexes of research variables**

| Indicators/ Variables | Average | Standard deviation | No. |
|---|---|---|---|
| Facebook addiction | 35.02 | 15.10 | 365 |
| Feeling loneliness | 36.11 | 11.12 | 365 |
| Romantic | 11.22 | 6.01 | 365 |
| Social | 12.18 | 5.12 | 365 |
| Family | 13.01 | 4.01 | 365 |
| Social anxiety | 37.10 | 13.02 | 365 |
| Fear | 13.02 | 5.15 | 365 |
| Avoidance | 14.32 | 6.32 | 365 |
| Physiological signs | 10.02 | 4.05 | 365 |

The Pearson correlation coefficient has been used to study the main hypothesis of this research based on the relationship between feeling of perceived loneliness and social anxiety with Facebook addiction whose results are reported in Table 2.

**Table 2: correlation matrix of feeling f perceived loneliness and social anxiety with Facebook addiction**

| variables | Feeling loneliness | romantic | social | family | Social anxiety | fear | Avoidance | Physiological signs |
|---|---|---|---|---|---|---|---|---|
| Facebook addiction | ***<br>0.43 | ***<br>0.32 | ***<br>0.43 | ***<br>.340 | ***<br>.560 | ***<br>.450 | ***<br>0.56 | ***<br>0.56 |

*** P<0.001          **P<0.01

According to the results of Table 2, there is a significant relationship between feeling of perceived loneliness with Facebook addiction (p=0.0000, r=0.36) and social anxiety with Facebook addiction (p=0.0000, r=0.53). According to the significant relationship between the predictor variables (feeling of perceived loneliness and social anxiety) and criterion variable (Facebook addiction), stepwise multiple regression analysis was used to determine the role of each predictor variable in predicting the criterion variable. The results of this analysis are shown in Table 3.

**Table 3: statistical indexes of stepwise regression for feeling of perceived loneliness and social anxiety to Facebook addiction**

| Steps | R | R$^2$ | df | F | B | Beta | T |
|---|---|---|---|---|---|---|---|
| Physiological signs | 0.56 | 0/44 | 1.349 | 163.34 | 3.02 | 0.58 | 13.21*** |
| Social feeling of loneliness | 0.63 | 0.42 | 1.654 | 95.86 | 0.69 | 0.30 | 3.98*** |
| avoidance | 0.76 | 0.57 | 0.984 | 89.87 | 1.31 | 0.51 | 3.92*** |
| Social anxiety | 0.73 | 0/43 | 1.578 | 123.23 | -0.52 | -0.52 | -2.98** |

*** P<0.001        **P<0.01

As it is seen in Table 3, physiological signs, social feeling of loneliness, avoidance, and social anxiety are the best predictor variables for Facebook addiction. This research was conducted to study the role of feeling of perceived loneliness and social anxiety in predicting Facebook addiction. The results showed a positive relationship between feeling of perceived loneliness and Facebook addiction.

## Discussions

According to Boland, R. J., Verduin, M. L., & Ruiz, P. (2022), social anxiety and perceived loneliness are key factors contributing to social media addiction. Individuals experiencing social anxiety and loneliness may struggle with real-life social interactions, leading them to seek fulfillment through excessive use of social networks. This compensatory behavior can develop into addictive patterns, where the individual increasingly relies on online interactions to reduce anxiety and loneliness, ultimately creating a vicious cycle of isolation and dependency. The data obtained from the present study support this statement.

The Social Compensation Hypothesis by McKenna and Bargh(2000), suggests that individuals who experience social anxiety, loneliness, or difficulties in real-life social interactions turn to online social networks to compensate for these deficits. Online platforms provide a safer and more controllable environment for socializing, helping reduce feelings of loneliness and anxiety. This compensatory use can lead to increased engagement and potentially addictive behaviors on social media. This study clearly demonstrates that participants experiencing social anxiety, for various reasons, turned more frequently to social networks and reported feelings of loneliness. This finding aligns with McKenna and Bargh's Social Compensation Hypothesis.

Research indicates that among the different types of loneliness-romantic, family, and social-social loneliness is the strongest predictor of internet addiction. Individuals who are unable to fulfill their social needs in real life and experience higher levels of social loneliness often turn to social networks to seek new friendships and satisfy their need for interaction. These online relationships may serve as a way to fill emotional voids. Furthermore, when appropriate face-to-face interpersonal communication decreases, the risk of engaging in problematic behaviors such as internet addiction increases (Ghasemzadeh, L., Shahraray. M. & Moradi, A., 2007).

This pattern persists because online interactions offer greater flexibility than face-to-face relationships and allow individuals to control or edit negative information about themselves. Over time, as individuals become addicted to social networks, their motivation for real-life social interaction declines, creating a self-perpetuating cycle. While people may initially turn to the internet to alleviate anxiety and loneliness, excessive online engagement often leads to further isolation. This happens because virtual platforms cannot replace genuine social connections, and time spent online detracts from academic, occupational, and family activities, ultimately exacerbating problems beyond the original sense of loneliness (Kim, Larousse, and Peng, 2009).

People with social anxiety have negative self-images in social situations and believe others clearly notice their anxiety. This distorted perception, such as imagining their face as redder or larger, intensifies their fear (Wild and Clarke, 2011). Furthermore, they have negative images of the body signs in their mind such as phobia of shaking hands and feet, confusion, etc. Such people even refuse eye contact or interaction with others and try to solve their problems by staying away from social positions and places where they are posed with the risk of being reviewed, humiliated, or negatively evaluated by others (Irwin, Turk, Heimberg, Fresco, & Hentola, 2004, Kaut & Goyer, 2014).

Umesh, K. C., Davis, R. M., & Gilbertson, R. L. (1998) found that excessive internet use is significantly associated with reduced family communication, a smaller social circle, and increased depression and perceived loneliness. This suggests that perceived loneliness among heavy internet users may be both a cause and a consequence of their dependence on the internet.

Additionally, this research observed a positive relationship between social anxiety and internet or social network addiction, supporting findings from studies such as Sheldon (2008), Orr et al. (2009), Clayton et al. (2013), and Aydin et al. (2013). However, these results contrast with studies like Shaw and Gantt (2002), Madell and Manser (2006), and Ryan & Xenos (2011), which either found internet use reduced loneliness and depression, or found no relationship between social anxiety and internet use.

Furthermore, among the dimensions of social anxiety, physiological symptoms and avoidance were the strongest predictors of internet and social network addiction. Difficulty fulfilling social needs in real life often drives individuals to social networks, where features like anonymity and control over self-presentation make online interaction appealing (Weinstein A., Dorani D., Elhadif R., Bukovza Y., Yarmulnik A., 2015). The convenience of electronic communication reduces motivation for face-to-face contact, increasing reliance on virtual relationships. People experiencing perceived loneliness and lacking social skills use the internet to manage negative emotions and social anxiety, viewing online platforms as alternatives for social connection (Morahan-Martin & Schumacher, 2003). Meta-analyses show that loneliness caused by shyness and low social support significantly increases Facebook use, offering short-term benefits like improved self-esteem and social skills but potentially reinforcing avoidance behaviors.

Umesh, K. C., et al. (1998) found excessive internet use correlates with reduced family communication, smaller social circles, and increased depression and perceived loneliness, suggesting loneliness is both a cause and consequence of internet dependence.

This study also found a positive link between social anxiety and internet addiction, consistent with Sheldon (2008), Orr et al. (2009), Clayton et al. (2013), and Aydin et al. (2013), though contrasting with Shaw and Gantt (2002) and others who found no such relationship. Among social anxiety dimensions, physiological symptoms and avoidance best predict internet addiction. The flexibility of online interactions-such as anonymity and lack of physical presence-makes them attractive but can reduce motivation for real-life socializing, creating a cycle where addiction leads to further isolation and interference with academic, occupational, and family responsibilities. Thus, while initially used to reduce anxiety and loneliness, excessive social media use may ultimately exacerbate social isolation.

Social anxiety (or social phobia) is highly prevalent, with this research reporting a rate of 12.8%, higher than the 7% cited in DSM-5. Individuals with social anxiety often experience persistent fear of negative evaluation in social situations and tend to avoid such interactions. The study also found that those addicted or at risk of addiction to the internet and social networks experience more physiological discomfort and avoidance in social situations, as well as higher levels of social phobia, compared to normal users. This aligns with findings that problematic internet use is strongly associated with mental health issues like generalized anxiety, social anxiety, and emotional disorders.

Furthermore, research indicates that social anxiety is a significant predictor of pathological use of virtual social networks, and addiction to online activities such as gaming is linked to increased social phobia. The ability to hide less desirable traits and avoid negative evaluation makes online communication especially appealing for socially anxious individuals, reinforcing their preference for virtual over face-to-face interactions. Ultimately, virtual environments may feel safer for those who wish to interact without anxiety, but reliance on such platforms can perpetuate social withdrawal and loneliness in the long term.

Additionally, the findings of this study reveal a significant relationship between perceived loneliness and Internet addiction, consistent with the results reported by Morahan–Martin and Schumacher (2003).

## Conclusion

It can be claimed according to the results of this research that feeling of perceived loneliness and social anxiety can predict Facebook addiction. The findings of this research can help parents, coaches, and experts in the mental health field detect the Internet addiction risk. Since this age is the age of communication through virtual networks and a high percentage of the country's people, especially the youth and students are active in social networks, it is suggested to pay attention to the related factors to extreme tendency to such networks in this age group. Feelings of perceived loneliness and social anxiety are clear contributing factors to Facebook addiction. Therefore, it is essential to consider psychological and social factors when studying this issue. It is suggested to use qualitative methods and interviews in further studies for a more comprehensive and deeper investigation of this issue, as well as longitudinal research to investigate the long-term effects of using Facebook. Media and educational institutions have played a significant role in raising the level of awareness of young people and families and should prioritize teaching the culture of correct use of high-tech tools such as the Internet, computers, and satellites in their agenda. It is suggested that professional experts in counseling and psychotherapy centers guide and teach more adaptive strategies to deal with the feeling of perceived loneliness and anxiety disorders and provide correct and appropriate information about the psychological consequences of addiction to social networks.

## Research limitations

Limitations of this research include using a scale solely in which that People may interpret the same question differently, which can ultimately affect the reliability of their responses. As this research was self-reporting, it was not possible to control the tendency to more or less reporting in some participants. Another limitation of this research is a sample group who are only Facebook users. Therefore, it is suggested to increase the enrichment of the obtained data and its generalization by considering these cases.

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