The Role of Social Networks in Mental Health and Social Intimacy: Emphasis on Students' Academic Performance

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Abstract: *In today's world, with the expansion of social networks, a new combination of communication applications has been created. The purpose of this study was to investigate the relationship between the rate and the manner of using virtual social networks and mental health and social intimacy in two groups of students with high and low academic performance. This research is a descriptive and correlational study. A sample of 275 third-grade high school female students was selected and then completed the questionnaires on the rate and the manner of using social networking, General Health Questionnaire and Miller's social intimacy. It was also found that there is a relationship between the variables of the rate and the manner of using social networks in two groups of students with high and low academic performance and mental health and social intimacy. The findings of the present study indicated that the excessive use of social networks causes people to distance themselves from the real world and bring them back to virtual groups to compensate. Living in the virtual world can put mental health at risk. However, due to reduced distance and cost-effectiveness, and as a result of increased communication between people, social intimacy increases.*

Keywords: *Virtual Social Networks, Mental Health, Social Intimacy, Students, Academic Performance.*

INTRODUCTION

The use of the Internet in today's world has become a necessity for human life. In an increasingly sophisticated and faster world, using internet is becoming more and more felt for humans, especially young people. Novel communication technologies have created a new world called the virtual world. Unlike the real world, the virtual world offers countless facilities to humankind. Among these facilities are easy accessibilities, anonymity, quick access to the information, low cost and so forth.

Despite all the benefits of using the Internet and social networks in daily life, this technology can act as a double-edged sword and has many problems for its users; while their relationships increase in the virtual world, their real-world relationships will decrease (Allah Karami, 2015). Also, its attraction makes people to choose virtual world rather than interaction with parents, friends and peers.

According to the latest Alexa website ranking (2016), about 36.4% of users of the Telegram virtual network are from Iranians and they are considered as the most visitors of this network.

Today, the spread of information and communication technologies has affected various aspects of human life, including physical and mental health. Each aspect of mental, physical, and social health is not only effective in improving overall health, but also provides a favorable environment for the development of latent talents (Shiri, 2011).

Mental health is the ability to communicate in harmony with others, to change and modify the individual-social environment, and to solve conflicts and personal preferences logically, fairly, and appropriately (Milanifar, 2003). According to Shamloo, the goal of education and mental health is one. In this sense, the

purpose of both is to make healthy, helpful, and prosperous people (Soleimani, 2015). Some scholars concluded that mental health is positively correlated with students' academic achievement (Sadeghi, Abedini and Nowroozi, 2013).

In addition to mental health, the ability to establish intimate relationships with others is one of the key factors in the health and well-being of individuals (Noller، Feeney & Peterson, 2001). Erickson (1963) considers the end of the adolescence and early adulthood to be an intimacy against abandonment. He believes that man needs to establish personal and long-term relationships with others. One who cannot establish such relationships may psychologically abandon others and establish only superficial social relations (Khosravi, 2011).

Erickson conceptualized the sense of intimacy as follows: the tendency to engage in a supportive and affectionate relationship without losing the "self" in that relationship; therefore, the growth and expansion of self is considered as one of the main dimensions of the development of healthy interpersonal intimacy (Daneshpour et al., 2007). One of the signs of intimacy is the willingness to engage in close, warm, communicative and committed engagements that play a vital role in a successful adult life (Farhadi, 2014).

Advancements in Internet communications and social network applications have led to major changes in the way people interact in the past several decades. This change has led to new ways to experience and realize intimacy in two areas before relationships and interaction with strangers. Physical proximity and direct face-to-face contact are diminished in daily interpersonal interactions with individuals (Lomanowska & Guitton, 2016).

By diminishing the importance of time and space and the lack of a common place to communicate, people can communicate in a much simpler way in cyberspace. This new form of communication results in changes in societies' culture and identity.

By increasing people's accessibility to the Internet, and especially social networks, there is a kind of dependence on cyberspace among adolescents. As cyberspace develops, their relationships in the real world are declining (Ghaffari, 2010).

Today, the use of mobile phones among community members, especially teenagers in schools, reports the existence of addiction to social networks among this population. This high dependence on social networks causes some kind of addiction that can affect a person's behavior with varying severity and weaknesses and threatens their mental health. The problem of overusing and the traumatic application of modern communication technologies, especially virtual social networks, has attracted the attention of psychologists and other scholars.

Kubey, Lavin and Barrows (2001) identified Internet addicts with sleep disorders, education, loneliness, and physical activity problems. Seyed Salman Alavi et al. (2008), in a research entitled "Comparison of Mental Identity and Mental Health among Students Using the Internet and Virtual Environments of Tehran University", showed that there is a significant relationship between the time of using, national and religious identity, and mental health of individuals; also, the identity of most people who are dependent on virtual environments and the Internet is likely changed earlier than normal people and their mental health is reduced.

Also, in a research on the topic of Internet addiction, social intimacy, and happiness in students, conducted by Rastegar, Abdollahi and Shahgholian (2014), they found that there is no significant difference among the two groups of healthy users and users with moderate Internet addiction in terms of happiness and social intimacy, but the level of happiness and social intimacy of both groups is far higher than those who are heavily addicted to the Internet.

Ramezani and Asgari (2014), in a research entitled "Moral intelligence and social intimacy of users and non-users of social networks", found that there was a significant difference between the social intimacy of social network users and non-users, but between the ethical intelligence of social network users and non-users no significant difference was seen.

In interpersonal relationships, self-disclosure increases intimacy while in real life, self-disclosure occurs only after establishing trust between the parties so that each party is sure that the other will not share

his/her secret with the mutual acquaintances. In contrast, in the Internet cyberspace, because of obscurity, the possibility of self-disclosure increases (Bidi, et al., 2012). Individuals receive various support in this space, followed by self-disclosure and expressing their stressful events, which is a kind of boost for expanding relationships and increasing intimacy.

Mitchell, Lebow, Uribe, Grathouse and Shoger (2011) found in their research that Internet usage (like games and friendly conversations) predicts a high level of perceived social support and happiness.

Sanders et al. (2015) showed that children and adolescents who use the Internet are reluctant to communicate with parents, and are socially isolated as well; also concluded that the extreme use of the Internet reduced social support and led to depression and loneliness (Mehdizadegan, 2014).

Selfhout, Branje, Delsing, Bogt and Meeus (2009) in their research about using Internet and the likelihood of depression and social anxiety with a moderating role of perceived friendship quality, found that for teenagers with low-quality friendship, the use of the Internet for communication purposes predicted less depression, while the use of the Internet for non-communicative activities led to more depression and social anxiety.

In sum, the results of many researches on internet addiction and social networks suggest that there is a significant relationship between addiction to the Internet and social networks with depression, loneliness due to the lack of social communication, conflict with the family, and social problems and harm caused by the excessive use of social networks and the Internet (Daniel & Shek, 2016; Griffiths et al., 2016; Gunuc & Dogan, 2016; Ferris, 2011).

According to the aforementioned, the importance of mental health in the adolescence period and, on the other hand, social intimacy, which is, in fact, the tendency of a person to engage in supporting relationships, is very noticeable during this period. Given the widespread use of the Internet and virtual networks in the youth and young people's community, this new phenomenon can affect this fundamental period of life. Therefore, the present study was designed and conducted to determine the relationship between the rate and manner of using social networks with mental health and social intimacy in third-grade high school students in district 20 of Tehran province.

Research Method

The present research is descriptive in terms of purpose and is correlational in terms of method. The statistical population of the study was all third-grade high school female students in district 20 of Tehran province who were studying in the school year 2017-2019. From this community, according to the Krejcie and Morgan (1970) table, a sample of 285 people was selected using cluster random sampling with two sampling units, the district, the school, and the classroom. Eventually, after the removal of 10 damaged forms, a sample of 275 students was obtained. The following tools were used in this research. The questionnaire on the extent and method of using social networks, the Goldenberg and Hiller general health questionnaire, and the Miller and Lefcourt social intimacy questionnaire were simultaneously administrated for them. The indicators and statistical methods, frequency, percentage, mean, standard deviation, correlation coefficient and regression analysis were applied to analyze the data.

Researcher-made questionnaire on the extent and use of social networks:
The measurement tool for mobile virtual social networks was a researcher-made questionnaire and its validity was reported to be acceptable by the supervisory and consultant professors. The questionnaire was designed with 11 items and examined the extent and manner of using virtual social networks, the motivation to use virtual social networks, and its positive and negative aspects from users' point of view. The reliability of this questionnaire was calculated by the researcher, and the result of the test was 0.89 by Cronbach's alpha.

General Health Questionnaire: this questionnaire consists of 28 items, which was developed by Goldberg and Hiller in 1972 using the factor analysis method in a long form. This questionnaire has 4 scales, each having 7 questions. Its scales include 1. physical symptoms, 2. anxiety and sleep disorders, 3. disorders of social function, 4. severe depression. Each answer has a score of zero to three. According to Goldberg, scores ranging from 14 to 21 in each subscale show the deterioration of the subject's condition in that

factor. The validity of this questionnaire was assessed by the simultaneous validity method with the Middlesex Hospital Questionnaire (MHQ), the correlation coefficient was 0.55, and the correlation coefficient between the subscales of this questionnaire; also, the total score varied from 0.72 to 0.87 (Soleimani, 2015) and the test reliability was 0.92 by Cronbach's alpha.

Miller and Lefcourt social intimacy questionnaire: This scale was designed by Miller and Lefcourt to assess the perceived intimacy of different relationships. The scale questions were arranged through organized interviews in which participants discussed the role of intimacy in all their relationships, including communication with friends, acquaintances and family members. This scale has 17 items, consisting of two groups of questions, 6 questions for psychological intimacy, and 11 other for highly experienced intimacy in the current time. All questions were answered on a 10-point Likert scale. Questions 2 and 14 were reversed, and the rest of the questions were based on a 10-degree scale (1: very rarely less to 10: almost always or too high) (Farhadi, 2014). Miller and Lefcourt (1982) obtained the Cronbach's alpha coefficient in various performances between 0.86 and 0.91, and confirmed discriminant validity, construct validity, and convergent validity (Rastegar et al., 2014). The reliability of the test was obtained 0.92through Cronbach's alpha.

Findings

Table 1 shows the frequency and frequency percentage of students in terms of high and low academic performance. According to Table 1, 193 people had high academic performance and 82 people had low academic performance.

Table 1: Frequency distribution of students' academic performance

GPA	Frequency	Frequency percentage
Above 17/20	193	70.54
Below 17/20	82	26.45
Total	275	100

The mean and standard deviations of students' mental health and social intimacy in terms of academic performance are presented in Table 2.

Table 2: Descriptive Indices of Student Scores in Social Intimacy and Mental Health

Variable	Group	Number	Mean	SD	t	p
Mental health	High academic performance	193	33.8083	1.591	1.141	0.25
	Low academic performance	82	36.2073	16.033		
Social intimacy	High academic performance	193	1.25	2.639	-1.276	0.20
	Low academic performance	82	1.20	33.67		

The results of Table 2 show that there is a significant difference in mental health and social intimacy between students' high and low academic achievement scores.

Table 3: Correlation coefficient of the studied variables

Variable	Group	The rate of using virtual social networks Pearson correlation coefficient	p
Mental health	High academic performance	0.45	0.000
	Low academic performance	0.53	0.000
Social intimacy	High academic performance	0.39	0.000
	Low academic performance	0.43	0.000

P<0.05

Correlation results showed that there is a positive and significant relationship between the use of social networks and mental health in students with high and low academic performances. The results also

indicated that there is a relationship between the use of social networks and social intimacy in students with high and low academic performances.

Table 4: Summary of regression analysis of the rate and manner of using virtual social networks of adolescents in terms of the variables studied

Variable	Statistical indicators				
	B	SEM	Beta	T	P value
Constant value	30.478	2.175		14.012	0.00
Mental health	1.771	0.855	0.124	2.071	0.039
Constant value	118.528	3.937		30.104	0.00
Social intimacy	2.312	1.548	0.090	1.493	0.137

Considering the obtained coefficients, it is seen that the t value obtained is significant in all cases. These results indicate that the use of virtual social networks predicts mental health as well as the social intimacy variable.

Discussion and Conclusion

Today, the expansion of the Internet and the new communication and information technologies have caused the emergence of cyberspace along with the real world; consequently, it has altered the patterns of human communication and human health and caused fundamental changes in them. The virtual world is considered as a reality, which among its basic features are the lack of space, extra-time, no limitation to the rules, low cost. Interactive cyberspace nowadays attracts many users and is very popular. In this regard, the present study was conducted to determine the relationship between the rate and manner of using social networks with mental health and social intimacy in students.

Among the findings of this study, there was a relationship between the use of social networks and mental health in two groups of students with high and low academic performance. The results of Swidell's study (1996) suggested that there is a relationship between low mental health (such as emotional and anxiety disorders) and behavioral problems, such as low academic achievement. In addition, the findings of Abolghasemi and Javanmiri (2012) showed that high levels of mental health and self-efficacy increase academic achievement (Iranmehre, 2016).

By increasing the use of virtual social networks, mental health is compromised. This condition, especially in low-performance students, can be a factor in reducing mental health. Involving in virtual social networks can reduce students' academic performance; as a result, it can decrease students' mental health by reducing their self-confidence as well as causing their isolation and abandonment.

Widespread access to the Internet has driven people into the virtual universe, causing psychological problems in these people. In this regard, a study by Wang, Ey and Chang in 2003 found a significant relationship between the degree of Internet addiction and negative psychological states such as loneliness, depression and obsessive behaviors (Fathi, 2011).

Furthermore, it was previously stated that in some studies internet addiction and the extreme use of social networks are associated with depression disorders, social anxiety (Salafat et al., 2009), sleep disorders, education and loneliness problems (Kobie et al., 2001), and mental health, generally. (Alavi et al., 2008).

One explanation regarding the relationship between the use of social networks and mental health in two groups of students with high and low academic performance is that the excessive activity of students in cyberspace can be a waste of time. This time waste can result in reducing the time of studying, spending time in cyberspace and the focus on academic affairs decreases.

Easy access to the Internet and social networks for students, poor parenting supervision, and the lack of a cultural and educational context can reduce students' relationships and interactions and increase their isolation and loneliness. Using social networks in both groups of students increases their dependence on social networks. This can be seen in students with high and low academic performance.

There is also a relation between the use of social networks and social intimacy in two groups of students with high and low academic performance.

Ramezani and Asgari (2014) concluded in their research that there is a significant difference between social intimacy among users of new social networks and non-users. In another study, Rastegar, Abdollahi, and Shahgholian (2014) found that there is no significant difference among both healthy users and users moderately addicted to the Internet in terms of happiness and social intimacy; however, the happiness and social intimacy of both groups are far higher than the user group with an intense Internet addiction.

Charmin and Teddy (2010) identified factors as the main reasons for Internet addiction and cyberspace. Among these factors is the possibility of users' quick operation, the feeling of being enjoyable while online, and compensating for intimate relationships that are dimmed in the real world. When a person in the real world cannot establish meaningful and intimate relationships with others, he will take refuge in the virtual world (Mehdizadegan, 2014).

In the matter of existing a significant relationship between the rate and the use of social networks with social intimacy in students with high and low academic performance, considering that social intimacy is a person's desire to have a supportive and affectionate relationship without losing self, one can pointed out that virtual social networks, regardless of physical and psychological damage and the creation of distance between individuals, in some cases, due to the lack of time and space and the low cost of using these networks, result in greater relationships and thus more social intimacy; because teenagers, at this age, are looking for establishing a friendship and adherence to it; moreover, their tendency to join groups and friends are more and joining virtual social networks can increase the relationships between teenagers.

Another explanation that can be presented here is that, according to Howard Rheingold's optimistic approach (Sabouri et al., 2013), participating in cyberspace, on the one hand, reduces the pressures of adapting one's self to group and collective expectations in the real world, and in order to realize the self ideally, it provides more freedom to the individual; on the other hand, environmental and geographical pressures on the users are reduced.

In another explanation of this hypothesis, it can be argued that this is an amplification that one obtains in these intimate relationships in cyberspace. During adolescence, students tend to show themselves as attractive and valuable to others. Using social networks, they can introduce themselves as person they like to be with any characteristics. If the response they receive in relationships with people through social networks is positive (which is often positive because the virtual world has many charms), they are encouraged to repeat this and, after conditioning, they repeat it more. In this way, by engaging more with people, intimacy arises in relationships.

Experiencing the current intimacy in relationships among people through social networks can increases confidence in individuals and provides an opportunity to share stressful events and receive support from others. People in these close relationships can raise their stressful situations and receive support and assistance from others. This feature can help to improve relationships among people. The process of sharing different problems, talking to others and sharing issues with them can help to increase the intimate relationship which depends on the degree of proximity or sociality; this degree of proximity may have a moderating role in this regard.

A look at the results of this study shows that people who are using virtual social networks have their mental health at risk and this relationship is seen in students with high and low academic performance. The malicious use of virtual social networks can have physical and psychological harm to people. On the other hand, the results of the research have shown that people who use social networks have more social partnerships and wider relationships, and this has led to more social intimacy among people.

The mechanism of the relationship between the extent and the manner of using virtual social networks with mental health and social intimacy in students is not clear, and various variables can affect it and create different interpretations. It is possible that the use of social networks brings people to the virtual world and leads them away from the real world, resulting in isolation and loneliness in the real world, and eventually, depression and aggression. Meanwhile, the spread of social networking has made it possible for people to interact with each other at any time, and hence social intimacy among people is increasing.

The role of cultural, gender factors and the mentality of people who are acting as users in cyberspace should not be ignored. In the present study, the role of cultural and gender factors was not addressed which were considered as the limitations of the present study. It is suggested that similar research be done in other samples of users, at different levels of education and age and by taking into account the personality traits.

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