

Study of the relationship between Internet addiction with social Anxiety and Loneliness among high school students in Yasuj

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ABSTRACT

Aim: Internet addiction in adolescents has become an issue of concern for a growing number of researchers and institutions over the recent years. Communicational problems and social isolation are some of the consequences of psychological and behavioural impact on students. This study aimed to investigate correlation between internet addiction with social anxiety and loneliness. **Material and Method:** The sample consisted of 220 college students (118 female and 102 male, aged (15-19) from the Yasuj high schools. The Internet Addiction Test, Social Interaction Anxiety Scale (SIAS) and social and emotional loneliness scale for adults (SELSA-S) were employed in the collection of data. Pearson correlation, regression analysis, and the t-test were used for data analysis. **Results:** results revealed a significant positive correlation between social anxiety, social loneliness, romantic loneliness and family loneliness with Internet addiction. Furthermore, social anxiety and romantic loneliness were found to be significant predictors of Internet addiction. Social anxiety which accounted for 10% of the variance, was the best predictor, followed by romantic loneliness (5%) and social loneliness (2%). **Discussion:** This research suggests that socially anxious and lonelier individuals are particularly susceptible to problematic internet use. This vulnerability may relate to the perception of online communication as a safer means of interacting, due to providing anonymity, improved sense of social control and decreased risk of negative evaluation, social fears and social rejection.

Keywords: Internet addiction, social anxiety, romantic loneliness, social loneliness, family loneliness

Introduction

The internet is a large database and a huge ocean of information; it is a large highway for facilitating communication between millions of people with different cultures, languages and ideas. The rise of psychological addictions to internet with its negative influences on social performance has questioned the positive effects of this huge technological movement. Loneliness, depression, shyness, drug addiction and social anxiety have been recognized as some of the psychological damages related to the excessive use of the internet^[1-5]. As peoples' communication in virtual world and on the internet grows, their relationships in the real world decline; this fact is a contradiction because the individual tries to communicate with

others but it leads to a decline in his/her communication^[6]. Social anxiety is described by excessive fear of humiliation, embarrassment and negative evaluation by others in social events that often make socially anxious people avoid such situations^[7]. Social anxiety disorder is accompanied by excessive fear of situations that are exposed to social judgment and leads to avoidance from such situations^[8]. Avoidance from social situations can in the course of time result in a low estimate of the social skills of people. Therefore, socially anxious people might use internet to regulate their social fears and their relate distress especially loneliness, depression, anxiety and low self-esteem^[9]. The Internet might have met the social needs of those who have problem making social relationships. Therefore, it helps developing social connectedness and providing belongingness^[10]. An increasing number of studies have found a positive relationship between social anxiety and in appropriate use of the internet^[2, 3, 11-13]. Other studies have found a positive relationship between social shyness and preferring online communication^[14-16]. Studies suggest that people with social anxiety might feel more comfortable in online communications^[13]. Because compared to face to face communication in which others are direct observers and fear of negative evaluation might be conveyed, online communication provides more anonymity. The anonymity on

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the internet provides a context which is more controlled and less intimate [17]. In a study, McKenna & Bargh (1999) found out that individuals with social anxiety compared to those without it were more likely to make intimate and romantic relationship through the internet. For them, the internet had taken the place of face to face communication [10]. In a longitudinal study by Kraut et al. (1998) increase in the use of internet led to decline in family relationships and social ties and caused more depression and loneliness. This impact was stronger in teenagers than in adolescents [18]. Evidences suggest that people who feel less comfortable in face to face interaction tend more to use the internet for social communication, but those who are more comfortable in offline communication tend to use the internet just as a source of information [19]. This is consistent with Hamberger & Ben-Artzi (2000) suggestion who declared that certain characteristics such as introversion and loneliness would lead to a more use of the internet and preferring it over real communication for making social communication; because this way of getting in touch would bring less regret [20]. Caplan (2002) also found that those who are shy and have lower self-esteem receive more social benefits and social control through the internet [9]. A study by Atashpour and Kazemi (2003) showed that excessive use of the internet would cause frustration, social isolation, loneliness, distance from the family and in general a decline in mental health [21]. According to Salimi et al. (2009) study, a direct perception of social support has been a negative and weak predictor for the internet use and loneliness correlated with an increase in the use of the internet. They suggested two hypotheses for explaining the relationship between loneliness and the internet use: first, excessive use of the internet might lead to loneliness. Second, lonely people have a strong tendency for an excessive use of the internet [22]. Therefore, it seems that loneliness and social anxiety are probably important predictors for the internet addiction.

Method

Considering the characteristics of the issue and the intended aims, this work is a basic study which has gathered data by using questionnaires and in a random manner. The statistical population of this research included male and female students of high school second class of Yasuj town in the year 2017 – 2018. Using stratified random sampling, 2.5 percent of the statistical population were randomly selected. The final size of the samples was 220, including 118 female (0.53.6) and 102 male (0.46.4) with a total age mean of 16.77 (SD= 1.1; Range= 15-19). three questionnaires has been used in this research which are described in following paragraphs:

A. Internet Addiction measure: The Internet Addiction Test (IAT) has been developed by Kimberly Young in 1988 to measure peoples' dependency on the internet [23]. IAT is a 20-item instrument and was originally scored on a 5- point Likert scale ranged from "rarely" to "always", that has demonstrated good reliability and validity and has

been widely used to screen for Internet addiction [24-26]. The Persian version of IAT is valid and reliable for the evaluation of internet addiction [27].

B. Loneliness Scale: The Social and Emotional Loneliness Scale for Adults-short version (SELSA-S), developed by DiTommaso, Brannen and Best (2004) and is a 15 item multidimensional tool which measures loneliness in social, family and romantic levels [28]. The scoring method of this questionnaire is 5-point Likert ranged from "totally disagree" to "totally agree". The authors reported the Cronbach alpha coefficient between 0.87 and 0.90 [28]. Result of exploratory and confirmatory factor analysis confirmed the validity of measure for use in Iran [29].

C. Social Anxiety Scale; Social Interaction Anxiety Scale (SIAS) has been used for measuring social anxiety. This tool has 20 items and is scored based on Likert method This self-report scale has been developed by Mattick & Clarke (1998) [30]. Higher scores in this scale means higher anxiety levels in social interaction. Carleton et al. (2009) confirmed the convergent and differential validity and the factor structure of the main version [31]. Taveli et al. (2012) concluded that the applied Farsi version of SIAS on Iranian students had a good reliability and validity [32].

Results

Internal correlation matrix of the variables has been shown by a correlation matrix in Table 1.

Table 1: the mean, standard deviation and internal correlation matrix between the variables (n=220)

variable	M	SD	□	2	3	4	5	6
1-Internet addiction	40/62	6/53						
2-social anxiety	26/52	8/35	. /32**					
3-loneliness scale	32/02	6/86	. /32**	. /15*				
4-social loneliness	10/37	3/11	. /28**	. /32**	. /65**			
5-Romantic loneliness	10/37	3/49	. /21**	-. /07	. /71**	. /20**		
6-Family loneliness	10/75	3/34	. /19**	. /09	. /69**	. /22**	. /22**	

*Correlation is significant at 0.05 level. *P< 0.05

**Correlation is significant at 0.01 level. **P< 0.01

It can be seen that all the correlations between addition to the internet and social anxiety and components of loneliness are high and meaningful. Social anxiety and loneliness showed the highest correlation with the internet addiction ($t=0.32$, $p<0.01$); among the component of loneliness, social loneliness ($t=0.28$, $p<0.01$), romantic loneliness ($t=0.21$, $p<0.01$), and family loneliness ($t=0.19$, $p<0.01$), have shown the highest correlations with the internet addiction. This shows that students with higher scores in social anxiety, social, romantic and family loneliness, have reported higher addiction to the internet.

Simultaneous regression analysis of the variables in table 2 showed that only social anxiety is able by itself to predict the

internet addiction at the $p < 0.01$ level and no other variable can predict the internet addiction by itself and at that level. The correlation coefficient of all the predicting variables is equivalent to 0.43. Moreover, by calculating coefficient of determination and adjustment coefficient it was observed that 17 percent of the changes related to the students' internet addiction can be explained by considering all the predicting variables with certainty level of $p < 0.01$ or it can be said that they have a covariance. By considering the calculated proportion, we understand that romantic loneliness too has a significant relationship with addiction to the internet ($p < 0.05$).

Table 2: simultaneous multivariate regression analysis and significance levels of internet addiction

Dependent variable	Predictor variables	Unstandardized Coefficients		Standardized Coefficients	T	P
		B	SE	β		
Internet addiction	Constant	25/91	2/14		12/06	0/000
	Social anxiety	0/22	0/05	0/29	4/42	0/000
	social loneliness	0/27	0/14	0/13	1/95	0/52
	romantic loneliness	0/34	0/12	0/18	2/89	0/04
	Family loneliness	0/19	0/12	0/09	1/52	0/12
R= . /439		R2= . /193		$\Delta R^2 = . /178$	$F_{(5,210)} = 12/842$	$P < = 0/000$

Regarding the examination of the hypothesis that there are multiple correlations between addition to the internet and social anxiety and loneliness components, step by step regression analyses showed that the three factors of social anxiety, romantic loneliness and social loneliness include the highest variance involved in addiction to the internet. Table 3 shows these variances together with regression coefficients.

Table 3: Step by step multivariate correlation, Coefficients, F proportions, regression coefficients and significance levels related to the internet addiction

Dependent variable	Predictor variables	R	R ²	ΔR^2	F	P	regression coefficients			
							1	2	3	4
Internet addiction	1 Social anxiety	. /32	. /108	. /104	26/42	. /000	$\beta = . /32$ $t = 5/14$ $p = . /000$			
	2 Social anxiety Romantic loneliness	. /40	. /166	. /158	21/53	. /000	$\beta = . /34$ $t = 5/56$ $p = . /000$	$\beta = . /24$ $t = 3/86$ $p = . /000$		
	3 Social anxiety Romantic loneliness Social loneliness	. /42	. /184	. /173	16/24	. /000	$\beta = . /29$ $t = 4/51$ $p = . /000$	$\beta = . /20$ $t = 3/24$ $p = . /001$	$\beta = . /14$ $t = 2/21$ $p = . /028$	
	4 Social anxiety Romantic loneliness Social loneliness sexuality	. /46	. /214	. /199	14/61	. /000	$\beta = . /29$ $t = 4/59$ $p = . /000$	$\beta = . /21$ $t = 3/44$ $p = . /001$	$\beta = . /13$ $t = 2/06$ $p = . /040$	$\beta = . /17$ $t = -2/84$ $p = . /005$
	R= . /462		R2= . /214	$\Delta R^2 = . /199$	$F_{(4,215)} = 14/61$	$P < = 0/000$				

These three factors play a significant role in predicting addiction to the internet. That social anxiety alone, has explained 0.10 percent of the variance involved in the addiction to the internet ($R^2 = 0.10$, $p < 0.01$). In the second step in which romantic loneliness has been added, 0.15 percent of the variance has totally been explained ($\Delta R^2 = 0.15$, $p < 0.01$). With the social loneliness being added in the third step, 0.17 percent of the variance ($\Delta R^2 = 0.17$, $p < 0.01$) has been explained. In another step, sexuality was added and 0.19 percent of the variance ($\Delta R^2 = 0.19$, $p < 0.01$) has been explained.

T-Test has been used in order to investigate sexual differences in each variable. Regarding addiction to the internet, boys had a higher mean compared to girls which is a meaningful difference ($t = 2.67$, $p < 0.05$). Regarding other variables, no significant difference has been found between the two sexes.

Conclusion

The main aim of this study is to investigate the relationship of social anxiety and loneliness with addiction to the internet among students. The results of this study showed that those who showed higher social anxiety and loneliness reported a higher internet addiction. Social anxiety in particular played a more important role in this issue. Among the studies variables only social anxiety could by itself predict internet addiction at the level of $p < 0.01$ and other variables were not able by themselves to predict internet addiction at this level. Correlation analyses also showed that the three factors of social anxiety, romantic loneliness and social loneliness include the highest variance involved in the addiction to the internet. One of the reasons of social anxiety is the lack of communication skills for making intimate relationships. Depending on the extent to which social anxiety can negatively affect social networks and social isolation, it can be extremely disabling [33]. Despite their significant need for making a safe and permanent

relationship, because these people have an excessive fear from negative social judgment about themselves, they hide away in their loneliness and try to make up for their shortcoming and attain peace through virtual and cyber space. In a study, Moody (2001) found that excessive use of the internet is correlated with high levels of emotional loneliness (a feeling of emptiness caused by a lack of intimate relationship). This lack of intimacy was the direct result of excessive use of the internet which caused physical separation from peer group^[34]. Physical intimacy not only helps social approval and personal development, but also increases the efficiency of physical attractiveness in the development of romantic relationships. Online relationship is one of the rare communication fields that the individual with social anxiety prefers over loneliness. However, the tendency of the individual with social anxiety for loneliness may be caused by the fear of negative evaluations from others. Thus, by escaping to online interactions the individual can hide this shortcoming. In this way, they reduce their social anxiety, take advantage from a less threatening communication and also overcome their feeling of loneliness. In their study, Deniz and Hamarta (2005) showed that there is relationship between poor social skills and loneliness and poor intra-personal relationships and low self-esteem^[35]. The internet might be used as a replacement for a friend but certainly it cannot be a proper replacement for more personal relationships such as those with one's spouse, children, colleague or parents. In another words, the internet might partly compensate for the shortcomings of the individual, but not only it cannot by itself guarantee any help for overcoming weakness in communication and freedom from loneliness, but also with communication channels being limited the interpersonal contacts decline day by day. A lack of communication skills and isolation from healthy social activities and escaping to loneliness and excessive, habitual and addictive use of the internet does not help compensating for shortcomings in social skills. Unless, communication through the internet is performed according to a therapy plan, under the supervision of a psychologist and their instructions. As an example we can refer to Anderson (2009) who used the internet as a means of treatment for social anxiety and other disorders. His famous model that has been increasingly used among clinicians emphasizes improving face to face contact in a safe interacting atmosphere^[36]. Of course, therapists should be well aware about the advantage and disadvantages of online therapy. Finally, it should be noted that the data of the present study is based on self-report, when other forms of measurements are used beside self-report, we would have more precise conclusions. Internet addiction and the studied variables might be correlated by way of a third variable that has not been mentioned in this research. Like other correlation studies, the impact direction for the relationships of the studied variables has not be specified. For instance, whether it is the social anxiety that makes people vulnerable to internet addiction or the opposite is true? Future studies should focus on clarifying the direction of this impact.

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