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THE RELATIONSHIP BETWEEN PERSONALITY CHARACTERISTICS, LONELINESS FEELING, AND ATTACHMENT STYLES WITH INTERNET ADDICTION AMONG HIGH SCHOOL STUDENTS IN THE CITY OF ILAM

MARYAM MALEKSHAHI[1*], JAHANSHAH MOHAMADZADEH[2], GHOBAD BAHAMIN[3]

1: MA in General Psychology, Islamic Azad University, Ilam, Iran. Department of Psychology,ilam branch, Islamic Azad University, Ilam, Iran

m_malekshahi_85@yahoo.com

2: Department of Psychology, ilam science and research branch, Islamic Azad University, Ilam, IRAN. Department of Psychology,ilam branch, Islamic Azad University, Ilam, Iran. Associate professor of psychology, Ilam University , Ilam , IRAN.

jahansham252@gmail.com

3: Assistant professor, Department of psychology, Payamenoor, University, PO Box 19395 - 3697Theran, IRAN

ABSTRACT

The purpose of this study was to examine the relationship between the personality characteristics, loneliness feeling, and attachment styles with internet addiction among high school students in the city of Ilam. The population of this study included all students during the academic year 2014-2015 in Ilam high schools. The sample consisted of 250 students that were selected via simple random sampling method. Participants in this study answered the questionnaires related to the personality characteristics (NEO-FFI), loneliness feeling, attachment styles and internet addiction. After gathering the data, Pearson correlation and multi-variable regression, was computed by the use of SPSS software. The findings indicated negative correlation among extroversion, agreeableness, conscientiousness, and secure attachment styles with internet addiction and positive correlation between openness to experience, neuroticism,

loneliness feeling, ambivalent-anxiety and avoidance attachment styles with internet addiction. The regression results indicated that the personality characteristics, loneliness feeling, attachment styles showed the 53 percent of the variance of the students' internet addiction. So, based on the present study's results it can be concluded that those who work in mental health and family should pay attention to the role of personality characteristics, loneliness feelings, and attachment styles in internet addiction.

Keywords: Personality Characteristics, Loneliness Feeling, Attachment Styles, Internet Addiction

INTRODUCTION

Access to the internet is an expanding phenomenon and every day, more individuals become internet users. The central role of internet is so fundamental that without it planning, development and profiting in social, economic and scientific arenas is not possible (Malek Ahmadi & Jafarian, 2011). Internet addiction is a chronic, all encompassing and recurring process which is associated with serious physical, financial, familial, social and psychological harm. Regarding the prevalence of internet addiction in various societies numerous statistics exist. On the average, the ratio of addicts is near 2 to 5 million for every 50 million population of regular users. In other words, it can be stated that near 5 to 10 percent of internet users get afflicted with addiction (Alavi *et al*, 2010). One of the factors that can play a role in internet dependency is personality trait. Personality traits are stable characteristics that do not change much from one situation to

another. They are stable and persistent gravitations of similar response to various stimulants. These traits can make individuals vulnerable to some disorders such as internet addiction. According to studies performed, internet addiction is related to individuals' personality traits (Khajeh Mugehi & Alasavand, 2010). Therefore, the gravitation of an individual to being free, creating various identities and remaining nameless in the virtual atmosphere and contact with unfamiliar people involves them with various types of different interactions. As a result, among factors that can explain different behaviors of individuals with respect to the internet are their personality traits (Mohammad pour & Kasaii, 2012). Landerse and Bury (2006) have shown that agreeing, conscientious and extrovert individuals have less gravitation to the use of internet. In another study, Gambor and Vas (2008) showed that positive and meaningful

correlation exists between extroversion, agreeableness and neuroticism with excessive use of internet in women.

Another variable studied in connection with internet addiction is feelings of loneliness in the users. Loneliness is an experience resulting from basic human need for belonging which can be persistent or temporary (Asher & Paquette, 2003). Loneliness is a fundamental truth of life and all individuals during periods of their lives experience it to various degrees (Neto & Barros, 2000). This situation occurs when there is a gap between inter individual relations that are desired with relations that the individual currently has (Peplau & Perlman, 1982; cited in Zarbaksh Bahri, Rashedi & Khademi, 2012). Hamberger and Ben-Artzi (2000) also with regards to application of the personality theory in relations with feeling lonely and the internet evaluated the personality and emotional traits of internet users. The results of their study showed that special traits such as introversion and feeling lonely lead to increased internet use. By integrating the models of feeling lonely and the model of Hamberger and Artzi (2000), it can be assumed that for individuals who feel lonely, the internet provides an ideological social environment. Internet connections increase freedom from prohibition, self-expression, closeness and self-presentation and provide an arena for practice and improvement of social skills. These facilities in line with combination with decreased social anxiety allow individuals to only present themselves more idealized. In addition, some individuals only use the internet as an escape for decreasing stress and negative feelings related to feeling lonely (Boot, 2000; cited in Morahan-Martin& Schumacher, 2003). In Iran also studies such as the one by Mashayekh and Borjali (2003) have been performed that show a negative and meaningful correlation between feeling lonely and chatting with the internet. Yet, it has not been studied which of these predicts the other. Of other factors influential on internet addiction are attachment styles. Lin, Ku and Woo (2011) in a study showed that internet addiction has a negative correlation with the immune style of attachment and positive correlation with non-immune attachment style. Additionally, it has been stated that in individuals addicted to the internet, sensitivity to boredom, low self-control, feeling lonely (Odaci & Kalkan, 2010), lack of openness to experiences (Ashiri, 2011) is observed. As a result and considering the issues mentioned, endeavor to achieve a clear understanding of effective factors on internet addiction is important. The purpose of this study was to

evaluate the relationship between personality traits, feeling lonely and attachment styles with internet addiction in high school students in the city of Ilam.

METHODOLOGY

The statistical population of this study included all students in the first to third years of high school in the city of Ilam in the year 2014-2014. To perform this study, after screening, 250 students including 135 girls and 115 boys in the first, second and third years of high school in the city of Ilam were selected by random sampling. Sample size was estimated using the Kerjcie & Morgan table (1970). The design of this study was descriptive and correlational. The method of performing the study involved coordination with the education and development department of the county of Ilam and relevant questionnaires were distributed among the students meeting the inclusion criteria. In this study, the following instruments were used.

Internet Addiction Questionnaire (IAT): This questionnaire has 20 items and is scored in a 5-point Likert scale. The range of scores is from zero to 100 (Young, 1998). This test was translated to Persian by Orang (2004) and has been used. Validity and reliability of the questionnaire has been assessed in many studies such as the study by Vedianto (2004) where he evaluated the reliability of Young's IAT and reported a reliability of 0/89 by the Cronbach's alpha method. Asgari and Marashian (2008) in their study used two methods of Cronbach's alpha and halving the questionnaire for determining its reliability where they reported the two coefficients 0/97 and 0/97 respectively. Ghasemzadeh and colleagues (2007) also reported a reliability of 0/88 for the instrument in their research.

The NEO Personality Questionnaire (NEO-FFI): McCrey and Costa (1985) formulated this questionnaire. This test evaluates five major personality traits of individuals which are neurosis, extroversion, openness, agreeableness and conscientiousness. Each of the mentioned traits is evaluated in this test with 12 questions. Scoring is in a 5-point Likert scale in a range between totally disagree (0) to totally agree (4) and scoring of some items is in reverse. McCrey and Costa (2004) in a study with participation of 208 students, reported a reliability coefficient for the short five personality trait NEO questionnaire (60 items) using the Cronbach's alpha method in the range of 0/75 to 0/83. Kiamehr (2002) after evaluating the psychometry of the test in humanities sciences students in University of Tehran reported a reliability for this questionnaire by the method of test re-test for the five factors of neurosis, extroversion, openness,

agreeableness and conscientiousness of equal to 0/84, 0/82, 0/78, 0/65 and 0/86 respectively and a Cronbach's alpha for these factors equal to 0/79, 0/73, 0/42, 0/58 and 0/77 respectively.

Attachment Style Questionnaire: The attachment style questionnaire was prepared by Simpson (1990, cited in Abassi Sarcheshmeh, 2005). This questionnaire includes 13 statements five of which evaluates immune attachment style (1, 2, 4, 6, and 12) and four statements that evaluate avoidant attachment (5, 7, 10 and 13) and 4 other statements that evaluate ambivalent-anxious attachment style (3, 8, 9 and 11). Each question has a score of 1 to 5. By adding up the scores of questions related to each attachment style, three separate scores are obtained and the score that prevails is selected as the individual's attachment style. Questions 2 and 6 are scored in reverse. The reliability of this questionnaire based on Cronbach's alpha and re-testing in time periods of one week to 2 years were 0/70 and 0/89 respectively (Simpson et al, 1992, cited in Abassi Sarcheshmeh, 2005). Rezazadeh (2002) obtained reliability for this test using re-test for an Iranian sample in 25 couples after 6 weeks to be equal to 0/68. Additionally, internal consistency of the questionnaire using Cronbach's alpha in 132

couples was reported at 0/74. **Loneliness Feeling Scale:** This scale was first prepared by Esher, Haimel and Renshaw in 1984 and includes 24 items. Eight items (2-4-5-11-13-15-19-23) are related to hobbies and interests and are not scored and are used to create a feeling of comfort and peacefulness during the test. Sixteen items are scored in a range of 16 to 80 based on a Likert scoring of each item between 1 to 5 points (is completely not true about me=1, is slightly true about me=2, is occasionally true about me=3, is commonly true about me=4 and is completely true about me=5). The study performed by Esher and colleagues (1984) showed that the scores of this scale are meaningfully correlated with scores of evaluating children and other group evaluation methods. The reliability of this test using the method of halving was 0/83 and using the Spearman Brown method, it was r=0/91and additionally using the halving method of Guttman it was r=0/91 (Esher *et al*, 1974). The reliability coefficient obtained by Mojedian by the re-test method in 25 days with participation of 41 students in a girl junior high school was 0/49.

 RESULTS

A. Descriptive Findings Table 1 shows the mean and standard deviation of the scores of the participants in the study variables. As

shown in **Table 1**, mean and standard deviation of the scores of the participants in the variable of internet addiction are 53/36 and 4/31 respectively. Additionally, mean and standard deviation of the scores of the participants in other variables is shown. **Table 2** shows the correlation coefficient between the study variables.

To determine the explaining ability of the study variables multivariable regression by the method of input of the data was performed. The results are shown in **Table 3**.

As shown in **Table 3**, regression for predicting of internet addiction in students based on personality traits (neuroticism, extroversion, openness to experience, agreeableness and conscientiousness), feeling loneliness and attachment styles (immune, anxious-ambivalent and avoidant) are meaningful such that all variables together predict 53 percent of the variance of the criteria variable (internet addiction in students).

Table 1: Mean, standard deviation, minimum and maximum scores of participants on the tested variables

Variable	Mean	Standard deviation	Minimum score	Maximum score
Internet addiction	53/36	4/31	20	87
Neuroticism	32/27	3/45	28	47
Extroversion	27/36	4/32	20	43
Openness to experience	26/51	3/25	9	47
Agreeableness	29/31	4/55	9	45
conscientiousness	27/64	4/71	8	42
Immune attachment style	16/43	3/54	7	23
Ambivalent-anxious attachment style	9/87	3/21	6	17
Avoidant attachment style	11/37	3/76	4	18
Feeling of loneliness	38/45	5/67	27	103

Table 2: Correlation coefficients between the study variables in all the participants

Criteria variable	Statistical Index / Predicting variable	Correlation coefficient (r)	Significance level (P)	Sample size (n)
Internet addiction	Neuroticism	0/43	0/001	250
	Extroversion	-0/51	0/001	250
	Openness to experience	0/50	0/001	250
	Agreeableness	-0/42	0/001	250
	conscientiousness	-0/36	0/001	250
	Immune attachment style	-0/33	0/001	250
	Ambivalent-anxious attachment style	0/35	0/001	250
	Avoidant attachment style	0/37	0/001	250
	Feeling of loneliness	0/53	0/001	250

All correlations between the study variables are meaningful at a P<0/001 level

Table 3: Multilateral correlation coefficients of the predicting variables (personality traits, feeling alone, attachment styles) with internet addiction in the students with the method of concurrent input

Method	Predicting variables	R	R^2	F	= p	β	T	= p
Input	Neuroticism	0/73	0/532	41/53	0/001	0/56	6/38	0/001
	Extroversion					-0/14	-4/83	0/001
	Openness to experience					0/75	7/12	0/001
	Agreeableness					-0/45	-3/87	0/01
	conscientiousness					0/32	2/11	0/04
	Feeling of loneliness					0/55	6/27	0/001
	Immune attachment style					-0/23	-3/42	0/01
	Ambivalent-anxious attachment style					0/25	3/56	0/01
	Avoidant attachment style					0/27	3/58	0/01

DISCUSSION AND CONCLUSION

As it has been mentioned, the purpose of this study was evaluation of the relationship between personality traits, feeling lonely and attachment styles with internet addiction in high school students in the city of Ilam. The results of the study showed that positive correlation exists between personality traits of neuroticism, openness to experiencing with internet addiction in students and negative and meaningful correlation existed between personality traits of extroversion, agreeableness and conscientiousness with internet addiction in students. These results agree with the research by Landerse and Bury (2006), Hardy and Tee (2007), Meerkerk and colleagues (2009), Dargahi (2003), Ghassemzadeh and colleagues (2007) and Shayegh and colleagues (2009). In explaining the results it can be stated that a high score in neuroticism is accompanied with emotional instability, negative emotions such as fear, sorrow, jitters, anger, feelings of sinfulness and hatred and people who achieve high scores in this area have more gravitation to impulsivity and aggression and their preparedness towards showing anxiety in tension inducing situations is more and they majorly use methods focused on excitement. As a result, use of the internet in an addictive form due to provision of grounds for exhibition and satisfaction of the mentioned characteristics is a coping mechanism to decrease individual's vulnerability (Dargahi, 2003). The other point is that individuals that have extrovert personality trait are more gravitated to being in public and participate more in group activities and are frequently interested in performing tasks based on cooperation and group work. They are dependent on real interactions and communications and spend most of the times

of their life with this regard. Based on their personality trait they have more friends compared to others and interactions and communication with these individuals itself takes time. This personality trait is more stimulating of sociability of individuals. Therefore, they have less interest and spend less time using the internet as a factor that draws them away from others and the people around them (Shayegh *et al*, 2009). Additionally, individuals that score high on the personality trait of openness to experience have characteristics such as interest in experiences for their own sake, look forward to diversity, have the ability to tolerate ambiguity and have a richer, more complex and unconventional life. In turn and in comparison to other individuals, they consider experiences and life matters as the only experience that can be a basis of diversity in life and have higher risk taking compared to others in use of facilities and new communication instruments. Additionally and considering that individuals with this trait compared to others have higher tolerance to ambiguity and do not torture themselves for control of situations and in a way accept matters without their consequences and attend them which can be a factor for their increased gravitation for use of novel and new phenomena (Ghasemzadeh *et al*, 2007).

Additionally, individuals who have a high level of agreeableness based on traits that predominate in them such as a person who likes others and feels empathic with them and is interested in helping them or shows the need for advancement and organization in him or herself gets less attracted to items and factors that decreases the individual's interaction with others. Also, it can be stated that when an individual feels needy of others and considers them helpful in reaching goals and creating a better life, he or she also considers distance and lack of interaction with them as a factor that is tension inducing and stressful and therefore, has less gravitation to internet addiction compared to others (Meerkerk *et al*, 2009). Ultimately, individuals with personality trait of conscientiousness are individuals with will, purposeful and determined, responsible and trustable and constantly endeavor to succeed. In turn, they use these characteristics in their life to reach their goals more frequently. Additionally and considering the social nature of humans and gravitation to being among people and seeking goals in society and based on presence of such traits, individuals have less tendency for use and addiction to the internet (Landerse & Bury, 2006). The other finding in this study is that positive and meaningful correlation exists between feeling

lonely and internet addiction in students. The results of this study agree with the findings of Ghasemzadeh and colleagues (2007), Chavoshzadeh (2008) and Kaplan (2003). In explaining the findings it can be stated that the arrival of media and new communication's facilities has revolutionized the human society and the form of interactions in it that the positive and negative consequences of media have been the topic of many studies and researches. One aspect is that in virtual relations and interactions where the embodied and tangible presence of the individual interacted with does not exist and when the individual uses the internet and computer excessively, close relation never forms and in a way the individual is separated from interaction and communication with his or her real world and the level of these interactions significantly decrease. The other point is that the most important consequence of the new communications and use of new technologies is creation of increased social interaction alongside with more social isolation. This contradiction is considered the product of bilateral decentralized communications. One of the most important reasons for inter individual relations is feeling of loneliness and it in a way shows deficiency in human relations and insufficient inter individual interactions that may result from undesired or insufficient quality of relations. In the past, physical presence was a condition for desired interactions. Yet, with progress in communications technology, humans became able to keep their relations and interactions with others in a world that becomes more complex and rapid by the day without physical presence. Still, what appears important is that this method of interaction that sometimes does not include any physical presence can in reality decrease and remove the sensation of loneliness or in reverse, its virtualness can lead to increase in this sensation. Overall, it can be stated that dependent on the present age which is a period of increased separation of individuals in real interactions and communications and an age which is more associated with various tensions and stresses, loneliness and isolation of individuals and in most instances the feeling of loneliness is one of the Ultimately, consequences of life in this age. based on the results obtained positive correlation exists between the attachment styles of ambivalence and anxiety and avoidance with internet addiction in students and negative and meaningful correlation exists between attachment styles that are immune with internet addiction in students. The results of this study agree with the studies by Sanders and colleagues (2000), Anderson

(2001), Huang and Hiu (2005), Lin and colleagues (2005), Lin and colleagues (2011) and Moeedfar and colleagues (2007). In explaining these results it can be stated that in the opinion of Bowlby there is connection between an individual's childhood experiences with his or her parents and his or her parental behavior later. According to the attachment theory, humans have a tendency to form strong emotional attachment with special individuals (Bowlby, 1977). In other words, attachment is a model that forms based on individual's primary relations with his or her parents or care takers and leads to future inter individual relations. This model can be immune, nonimmune –ambivalent and avoidant (Mikulincer and Shaver, 2003). With this regard, some researchers have extensively considered the relationship between internet addiction and attachment style. Lin and colleagues (2011) in a study showed that internet addiction has negative correlation with immune attachment style and positive correlation with nonimmune attachment style. Adolescents who use the internet more than others have less interaction with their mothers and friends and have nonimmune attachment style in interaction with their parents. Additionally, in another study it was shown that internet addiction has negative correlation with immune attachment

style and positive correlation with ambivalent and avoidant attachment styles and the ambivalent attachment style more than the other two is more predictive of internet addiction (Lin et al, 2005). Finally, of limitations of this study was that evaluation of internet addiction by way of self-report might question the accuracy and precision of the findings. Additionally, this study was performed with participation of high school students in the city of Ilam and generalization of the results to students in other provinces and cross sections needs to be performed with caution. It is suggested that the topic of this study be evaluated in other communities (high schools and other school years across the country) so that better generalization is achieved and to also compare the results of research in various societies and understand the role of cultural factors

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