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Relationship of Internet Addiction with Psychological Distress and Emotional Intelligence among university students



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Abstract

The present study explored the relationship of psychological distress and emotional intelligence with internet addiction. The participants were 200 individuals from different universities of Islamabad and Rawalpindi, who were active internet users in their daily life. A correlation method was used in order to obtain the quantitative analysis of the relationship between the three variables. The Internet Addiction Test (Young, 1998), Wong and Law Emotional Intelligence Scale (Wong et al., 2007) and the Depression Anxiety Stress Scale-21 were used. The results supported the hypothesis that there is a relationship among internet addiction, psychological distress and emotional intelligence among internet users.

Keywords: Internet Addiction; Emotional Intelligence; Psychological; Distress; Internet Users

INTRODUCTION

Internet Usage

Internet was developed for a safe exchange of information as well as for a better communication pathway. Since the development of internet, the number of internet users has increased and so has the complexity of the internet world. People from different backgrounds, ethnicities and different age ranges have access to the internet. According to the world internet statistics' recent study, the use of internet around the world has increased since the last one decade and is continuously increasing everyday with the advancement in technology and, with the passage of time. The use of mobile devices for using the internet has also increased for tasks such as using the social media, playing video games or online shopping etc. (Duggan & Smith 2013).

According to the International telecommunications Union, the population of internet users within Pakistan has increased by 17.6% since 2000. University students use the internet for educational purposes and are involved in several recreational activities present on the internet world. (Myers, 2011). The highest number of internet users in the current



times is students from different universities and colleges, using the internet specifically for educational purposes, for social media as well as online video games. Through many researches, it has been found that the prevalence of internet usage is higher among the young and the educated than the older people. (Bashir, Mahmood & Shafique, 2011, p.52)

Due to the overestimation of its benefits, however, to some extent we have ignored most of its negative consequences and the potential harms towards the people who are involved in its excessive usage. It has been found that the more time a student spends on the internet, the higher his or her chances are of becoming an internet addict (Sushma et al., 2014). In a research study by Kubey (2001) it was found that students involved in excessive usage of the internet, even during late night hours were prone to have a poor academic performance.

Internet addiction in its simplest form can be characterized as a type of impulsive behavior in which one is unable to control their urge to spend long and excessive hours on the Internet and virtual world. (1996) Young et al. has defined Internet addiction as a broad term covering a wide variety of behaviors and impulse control behaviors. However, there is no agreed definition of Internet addiction defined either by the APA or the WHO. Therefore, the aim of this study is to determine the relationship between internet addiction with psychological distress and emotional intelligence among university students in Pakistan.

Psychological Distress and Internet Addiction

Psychological distress refers to emotional disturbances, usually caused by an external or internal stressor, often due to a conflict which is unresolved or difficult to deal with in day to day life. It involves unpleasant feelings of stress and anxiety. Chalfant et al, (1990) described psychological distress as a continuous experience of unhappiness, nervousness, irritability and problematic interpersonal relationships. As discussed, and reviewed above, university students form up the highest ratio of all the internet users, which puts them at higher risk of acquiring psychological distress than the rest of the people. Students spend most of their time on online video games and social media and with most of their time spent in the virtual world, many of them soon find it impulsive to stay limited from the Internet space which for some, often causes problems like increased impulsivity, depression, anxiety, high level of academic and social stress and difficulty coping with day to day problems. For instance, depression is the most widely discussed psychological problem among internet users. (Christakis et al., 2011; Goel, Subramanyam, & Kamath, 2013). Excessive internet usage or internet addiction has been found to be a contributing factor towards the development of suicidal ideation among individuals already struggling with mental health issues (Fu, Chan, Wong, & Yip, 2010; Kim et al., 2006). In a research study, it was found that internet users are also at risk of developing social isolation, solitary seclusion and loneliness (Fortson, Scotti, Chen, Malone, & Del Ben, 2007; Whang, Lee, & Chang, 2003). It was found that overall, internet users who find themselves to be involved in excessive usage of the internet had a negative impact in their quality of lives and psychological well-being. (Zhang, Amos, & McDowell, 2008). Excessive usage of the internet has been found to contribute to internet addiction and also, far more exhibition of impulsivity than an average user (Cao F, Su L, Liu T, Gao X 2007).

For instance, a study by (Ha et al., 2007; Young & Rogers, 1998; Kim et al., 2006; Lee et al., 2001) found out that people suffering from psychological distress are more likely to use the internet more. According to (Young, 2009;



Anonymous, 2016b), people use the internet to avoid or repress their unpleasant feelings and the emotional states that they are in due to psychological distress. For them, cyber space is like an escape from their psychological problems. This again, is one of the several reasons why people become emotionally attached to the internet world. Young people develop connections and different relationships on the internet which makes it harder for them to get rid of the excessive usage of the internet (Leung & Lee, 2012; Griffiths, 2013). In a research conducted by Velez Moro, lace field, and Roberti (2010) it was found that high levels of stress associated with life in college can increase the prone of some individuals into becoming Internet addicts.

Emotional Intelligence and Internet Addiction

According to many researches emotional intelligence helps in maintaining good physical and psychological health. According to **Jahanvash karim** (2009) good emotional intelligence increase psychological well-being while low emotional intelligence resulted in psychological distress. According to (Salovey et al., 1999; Salovey et al., 2000; Tsaousis, & Nikolaou, 2005), psychological health is highly influenced by emotional intelligence. People with high emotional intelligence have a better psychological health, most probably because emotional intelligence enables a person to regulate and control their emotions, which in turn contributes to their psychological well-being (Taylor, 2001). So, to enhance the emotional intelligence, internet adiction should be reduces and emphasis on the co curricular based activities because Laraib et al., (2020) proved that academic acheivements of students is based on their ao-curricular activites.

Operational Definitions of Variables

1.1 Psychological Distress

Psychological distress refers to emotional disturbances, usually caused by an external or internal stressor, often due to a conflict which is unresolved or difficult to deal with in day to day life.

1.2 Emotional Intelligence

Emotional intelligence refers to one's ability to understand, regulate and express one's emotions and understanding the emotions of other people, helping them take appropriate decisions and make effective choices.

1.3 Internet Addiction

Internet addiction in its simplest form can be characterized as a type of impulsive behavior in which one is unable to control their urge to spend long and excessive hours on the Internet and virtual world.

Conceptual Framework of the Study

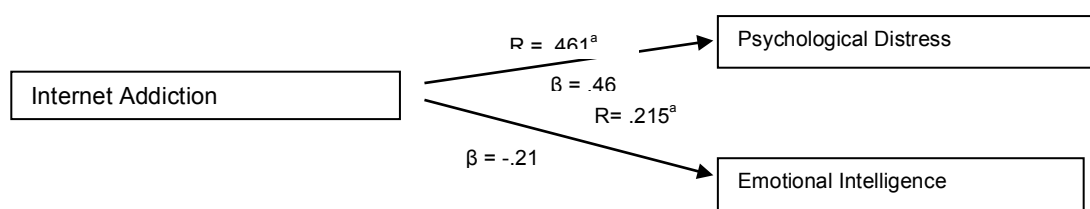


Fig 1: Conceptual Framework



METHODOLOGY

Hypothesis

- There is a significant relationship between internet addiction and psychological distress.
- There is a significant relationship between internet addiction and emotional intelligence.
- There is a significantly positive correlation between psychological distress and internet addiction.
- There is no significant gender difference in the relationship of internet addiction with emotional and psychological distress.
- There is a significant variance in emotional intelligence caused by psychological distress.

SAMPLE

The study consisted of a total of 200 participants. The participants ranged from the ages 18-25, all belonging to different universities of Rawalpindi and Islamabad.

MEASURES

Internet Addiction Test

It was originally developed by Young (1998), the Internet Addiction Test measures the presence and severity of internet dependency among adults. It assesses different symptoms of internet addiction among variety of different settings. It is designed for experienced internet users who use the internet on a frequent basis. Each item is scored from 0-5 on a 5-point scale and the maximum score is 100.

Wong and Law Emotional Intelligence Scale

The Wong and Law Emotional Intelligence Scale is a self-report scale and consist of a total of 16 statements. Each statement is score from 1-7. It is designed to provide information about a person's emotional intelligence. It is based on the model of emotional intelligence developed by Mayer, Salovey and Caruso (2002).

DASS-21

The DASS is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of the three DASS scales contains 14 items, divided into sub-scales of 2-5 items with similar content. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive



and impatient. Subjects are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state *over the past week*. Scores for Depression, Anxiety and Stress are calculated by summing the scores for the relevant items (Shahbaz, 2015).

PROCEDURE

The data was collected from different universities of Rawalpindi and Islamabad through questionnaire survey. The individuals were approached within the premises of their universities and were briefed about the purpose and aim of the study. The subjects were thoroughly briefed about their rights as the participants of the study and were asked to sign a consent form before they could fill the questionnaire. The subjects were selected by the method of convenient sampling.

DATA ANALYSIS

The data was analyzed using SPSS-23, to investigate the effect of internet addiction on psychological distress and emotional intelligence.

RESULTS

To investigate the effect of internet addiction on psychological distress and emotional intelligence the quantitative data was analyzed through SPSS-XXIII.

TABLE 1 Frequency Detail of Sample Characteristics for Main Study (N=200)

Sample Characteristics	Categories	F	%
Gender	Females	91	45.5
	Males	109	54.5
Age	18-21 years	125	62.5
	22-25 years	75	37.5
Marital Status	Single	189	94.5
	Engaged	8	4
	Married	3	1.5
Family System	Nuclear	119	59.5
	Joint	81	40.5
Economic Status	Lower	8	4
	Middle	177	88.5
	Higher	15	7.5
Do you use internet	Yes	200	100
	No	0	0

f =frequency



Table indicates the total sample ($N=200$) is consisting of 54.5% male and 45.5% female with age range of 18-25 years. Age was also taken as a demographic variable, there were 62.5% students who had 18 to 21 years age and 37.5% students had 22 to 25 years age. In the study 94.5% students were single, 4% engaged and 1.5% married. 59.5% students had Nuclear family system and 40.5 had Joint family system. 4% students had lower economic status, 88.5% students belong to middle class and 7.5% had higher economic status. 100% students uses internet.

TABLE 2 Descriptive Analysis

Variables	N	M	S.D		Range		Skewness	Kurtosis
					Potential	Actual		
DASS	200	25.03	10.512	846	0-63	1-53	-.136	-.501
IAT	199	45.92	17.444	871	0-100	0-96	-.265	-.347
EM	200	81.78	16.615	832	16-112	22-160	-.079	2.396

Note: DASS=Depression Anxiety Stress; IAT=Internet Addiction test; EM=Emotional Intelligence, N=no. of Respondents; M=Mean; S.D= Standard Deviation; α =Cronbach's Alpha Reliability Coefficient

The data was checked for normality in SPSS. This was done by using the statistics of Skewness and Kurtosis. Mean, standard deviation, skewness, Cronbach's alpha reliability coefficient, potential and actual ranges of the scales have been reported in Table above. Potential range is the maximum and minimum score specified by the scale while the actual range is the minimum and maximum score other sample on the scale. The Mean and standard deviation of sample ($N=200$) for DASS ($M=25.03$, $SD=10.512$), for IAT ($M=45.92$, $SD=17.444$) and EM($M=81.78$, $SD=16.615$) All these indicated that the data was normally distributed.

TABLE 3 Correlation Analysis

Variable		2	3	4	5	M	SD
Int. Addiction		.427**	.388**	.350**	-.215*	45.92	17.44
Stress		-	.585**	.580**	-.259	8.73	4.26
Depression			-	.537**	-.381*	7.90	4.92
Anxiety				-	-.240**	8.39	3.90
Emotional In					-	81.78	16.61

Note: * $p<.05$, ** $p<.01$

The Table showed that Internet addiction is statically moderately correlated with Stress ($r=.427$, $p<.01$).Internet Addiction is statically Weakley correlated with depression ($r=.388$, $p<.01$), Internet addiction is weakly correlated with anxiety ($r=.350$, $p<.01$) and Internet addition has weak negative relation with emotional intelligence ($r=-.215$, $p<.01$).

TABLE 4 Linear Regression Analysis showing the Impact of Internet Addiction on Depression Anxiety Stress (*N*=200)

V	IV		.E			²	
ASS	Constant	2.31		46	461 ^a	21	3.26
	IA	278	038				

IA= Internet Addiction; DASS= Depression Anxiety Stress Scale; S.E=Standard Error; β =Beta

The above Table shows the predicting role of Internet Addiction on Depression Anxiety Stress. The linear regression analysis showed that Internet Addiction is the predictor of Depression Anxiety Stress ($\beta=.46$) which is explaining the maximum variance of 21% ($R^2=.21$). It also shows that $R=.461^a$ and $F=53.26$.

TABLE 5 Linear Regression Analysis showing the Impact of Internet Addiction on Emotional Intelligence (*N*=200)

DV	IV		.E			²	
EI	Constant	1.26		.21	215 ^a	4	.59
	IA	.206	066				

IA= Internet Addiction; EI= Emotional Intelligence; S.E=Standard Error; β =Beta

The above Table shows the predicting role of Internet Addiction on Emotional Intelligence. The linear regression analysis showed that Internet Addiction is the predictor of Emotional Intelligence ($\beta=-.21$) which is explaining the maximum variance of 4% ($R^2=.04$). It also shows that $R=.215^a$ and $F=9.59$.

Table 5 Independent-samples t-test

	Boys (n=109)		Girls (n=91)					
Variables	M	SD	M	SD	t (df)	p	95% CI	Cohen's d
Dep.	7.972	4.0993	7.8242	4.53528	-.243(198)	808	[-1.353, 1.056]	0.034
Anxiety	8.256	3.6903	8.5495	4.15602	.527(198)	599	[-.8020, 1.387]	0.074
Stress	8.6881	4.077	8.7912	4.49325	.170(198)	865	[-1.092, 1.299]	0.024
IA	47.31	16.996	44.26	17.915	-1.231 (197)	220	[-7.940, 1.838]	0.17
EI	81.92	17.007	81.62	16.225	-.128 (198)	899	[-4.966, 4.362]	0.018

Note * $p<.05$ ** $p<.01$ *** $p<.001$; DAS= Depression Anxiety Stress, IA= Internet Addiction, EI= Emotional Intelligence; M=Mean, SD= Standard Deviation, CI= Confidence Interval.

$p > 0.05$ results revealed that there are no significant gender differences depression, stress, anxiety and emotional intelligence. Results reveal that that males have higher internet addiction $t(197) = -1.231$, $p > .05$ than females.

DISCUSSION

The purpose of the study was to determine the relationship of internet addiction with psychological distress and emotional intelligence. It is observed from the results that internet user who showed high scores on internet addiction scales have increased psychological distress and decreased emotional intelligence. The sample of the study consisted of 200 participants and the data was screened for normality in the IBM SPSS using the statistics of skewness and kurtosis, mean standard deviation and Cronbach's alpha reliability coefficient. All the participants who participated were active internet users.

In this study students scored high on the internet addiction indicates 21% variance in depression, anxiety and stress. Results also show internet addiction as the predictor of decrease emotional intelligence there is variance of 4% in emotional intelligence. The results support one of the previous studies that concluded high prevalence of internet addiction among university students (Ataee et al., 2014; Frangos et al., 2011). The results of this study showed that there are no significant gender differences internet addiction, emotional intelligence and psychological distress. This is also supported by a study which concluded that there no difference of proportion of internet addiction among males and females (Magali., et al 2016). The usage of internet is higher among university students; the risk for depression among them is relatively higher than it is among other groups of people. The study is applicable specifically to the university students in Rawalpindi and Islamabad and cannot be generalized to other populations. Replication of this study is needed with students of other cultures and backgrounds.

LIMITATIONS

1. The sample consisted of participants that belonged to a limited geographical region (Islamabad/Rawalpindi), which raises the issue of generalizability of results.
2. The questionnaires chosen for the study were primarily in English language and the sample was modified in accordance to that. Many people were discarded from the study due to this. The study could have been translated in languages other than English for the sample to be more representative.
3. The sample size was small.

STRENGTHS

1. This research can provide itself to be a basis for future researches on the respective topic.
2. The research serves itself as a guide for different universities about how the excessive usage of internet is detrimental and can be used as a way to develop interventional strategies to overcome the consequences.



3. The questionnaires were filled anonymously, which increased the probability of the responses to be more truthful as the fear of the invasion of confidentiality was eliminated.
4. The age group selected was representative of the youth population.

RECOMMENDATIONS

A systematic and more extensive literature review can provide for a better and more narrowed research study. It can be emphasized in the future to translate the test instruments into different languages so that the research can be inclusive of a number of different participants from different backgrounds, languages and ethnicity so that participants are not discarded on the basis of language barriers. The sample size for the study should be increased in the future for a more representative sample. Sample should be recruited through a method that makes the results more generalizable to the overall population and not just to a limited geographical location or age range.

CONCLUSION

Internet is a wonderful way of communication in this modern world. Currently in the 21st century, it has become an extremely crucial part of our day to day lives. Students studying in universities should get maximum benefits from the Internet. However, the study indicates otherwise as the disadvantages of internet addiction has lead to various psychological problems including immense psychological distress and decreased emotional intelligence among university students within Pakistan alone. The results show an alarming increase in psychological distress due to excessive internet usage and this should be a matter of concern for all the universities of Pakistan as 64% of the population of Pakistan is the youth, and the youth contributes the highest number of internet users worldwide. This study should raise awareness among university administrations to provide a counseling medium for students and hold awareness sessions about the impacts of excessive internet usage and how to utilize the internet in a productive and positive manner rather than using it in a way which causes more harm than benefits.

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