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Internet Addiction and its Relation to Psychosocial Adaptation among Jordanian High Basic Stage Students

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Abstract

The study aimed at identifying the level of internet addiction among high basic stage students (8th, 9th and 10th grades) in Jordan. It also aimed at predicting the effect of psychosocial adaptation and other variables related to internet use on internet addiction. To achieve the objectives of the study, the internet addiction scale and the psychosocial adaptation scale were used and administered to a sample of (600) male and female students. The results of the study showed that the rate of internet addicts reached (8.5 %) for the total sample. The results revealed that the following dimensions of the psychosocial adaptation scale (attention problems, physical problems, anxiety and depression, and social problems), and the number of hours spent on the internet, checking the e-mail, visiting social sites, and years of internet usage contributed in predicting internet addiction. The results also showed that the psychosocial adaptation among non- addicted students was higher than that of the addicted students.

Keywords: internet addiction, psychosocial adaptation, Jordanian Students

Introduction

Internet is playing a significant role in our lives as means of communication, information exchange, entertainment, and social interaction regardless of time and place limitations. It is simple, available, and affordable to all ages and socio-economical levels. The most important services that the internet presents to the youth are the e-mail, chatting, discussion group, social entertainment (games, songs, videos), shopping, and search for kind of information (Chou & Hasio, 1999). Lin& Tsai (2001) stated that internet has turned to be a place of comfort for teenagers, a way to relieve their depression, and means of getting rid of bad mood and stress or to play and exchange funny messages and jokes. Gross et al. (2002) indicated that teenagers are more susceptible than adults to the harmful effects of different kinds of addiction such as drugs and internet addiction. This increases the concern of the parents and teachers about the use of the internet by their teenagers particularly that many of them spend long hours using it with the absence of direct supervision or control that may protect them from bad and harmful sites. Therefore, psychologists and educationalists cared for discussing the "healthy" and "unhealthy" use of the internet. Negative outcomes of spending long hours on the internet are connected to many health problems such as knuckles pain, sleeplessness, overweigh or underweight. Also, heavy users face social and familial problems represented in the disorder of social relations, the enhancement of isolation and social adaptation problems (AbuJidi, 2004). The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) include a number of symptoms that represent internet addiction including the inability to tolerate keeping off the internet, using web- sites for longer time than intended, the unsuccessful efforts to stop using it and the decline of social and professional activities.

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Young (1997) adds other symptoms like being absorbed in thinking of the internet, feeling the need to prolong the internet time to achieve satisfaction, feeling anxious, moody and depressed, easily irritated when trying to stop using the internet, lying to family members and others about the activates the individual practices, and using the internet as a means to escape daily life problems. According to Young (1999), there are many reasons that contribute in internet addiction, namely avoiding daily life problems, continuous stimulation to feeling and senses, ease of social interaction, availability of using the internet, provision of secrecy and freedom of usage. Goldberg (1996) referred to several factors that cause internet addiction, the most important of which are the lack of social support, family adaptation problems and the loss of psychological security for users, along with the nature of the internet-related elements like privacy and secrecy where the user acts freely without control. Many previous studies made reference to the phenomenon of internet addiction and sought to limit its spread and variance according to numerous variables. Young (1996) conducted a study that aimed at exploring internet addiction phenomenon among a sample of (496) individuals whose ages ranged between (29-34) years. The results showed that the rate of internet addiction reached (80%) of the sample, and that internet addicts may spend (20-80) hours a week on the internet. Other studies revealed low rates of addiction as Greenfield (1998) refers to the reality of internet addiction through the visitors of ABC television station's sites on the internet. The results of the study indicated that (990) individuals rating (5.7 %) of the participants were internet addicts, and it appeared that 30% of the participants were using the internet to escape daily life problems.

Anderson (2000) investigated internet addiction and patterns of its use among college students on a sample of (1302) students. The results revealed that about (10%) of the students, mostly males, were internet addicts who face difficulties in their scientific and academic lives in addition to different patterns of sleeping. Furthermore, the study of Mikdadi & Sammour (2008) targeted at identifying the relationship between internet addiction and neurotic responses among a sample of (570) of internet- café customers in Jordan. The results showed that the percentage of addicts was 13.3% of the sample. The results also indicated the existence of statistically significant relationship between internet addiction and neurotic responses. The most significant internet addiction indicators pointed at endurance While the neurotic responses indicators were depressive. Psychological adaptation seems to be related to internet addiction since outcomes of addiction feeds and control such ability to adopt to their life activities. Psychological adaptation refers to the ability of living beings to adapt with changing situations, natural conditions and the habitat wherein they live in attempt to survive. Psychologically, it is the individual's attempt to defeat the barriers that stand against realizing their needs or inspirations. In other words, every conduct that aims at adaptation is the purpose of the living being. This does not mean that any conduct essentially leads to appropriate adaptation. Therefore, psychologists depended on several criteria to specify normal or abnormal adaptation like the referential, social and cultural frame with all its habits, traditions and customs (Al-Sheikh, 2002). It is not possible for a person to be able to adapt with his context and create positive social relationships while they are unable to adapt with themselves. It is also unease for one to be able to adapt within themselves while they are unable to adapt with the others. The personality of an individual is integral, and many researchers merge the two terms into one considering the close interconnection between them.

Adaptation is affected by two types of variables, internal and external. The external factors indicate the requirements of the outer environment including the requisitions of other people while the internal factors refer to the physical and social needs like security, food, company, social acceptance, the sense of self-esteem, social valuation and love (Al-Atrash, 2000). The overuse of the internet motivated scientists to look at the psychological and social characteristics of internet users. Perhaps the most prominent of these characteristics that capture interest is the feeling of some internet users of loneliness, social anxiety, psychological depression, self-exposure and others psychosocial adaptation problems. The study by Kim et al. (2004) examined the relationship between internet addiction and depression and suicidal thoughts among Korean adolescents using a sample of (1273) high school students who live in cities. The results of the study showed a positive relationship between internet addiction and depression and suicidal thoughts. Moreover, Al-Hosni (2009) performed a study that aimed at identifying the relationship between internet addiction with depression and social isolation upon a sample of (346) male and female students in the Sultanate of Oman. The results revealed a statistically significant negative correlation between the means of internet addiction and depression scores. It also indicated a statistically significant positive correlation between internet addiction and social isolation.

Al-Ausaimi (2010) performed a study that targeted at recognizing the relationship between internet addiction and psychosocial adjustment on a sample of (350) students from Kingdom of Saudi Arabia. The results revealed a statistically significant negative correlation between scores of the internet addiction scale and scores of psychosocial adoption scale. These previous studies from countries similar to Jordan support the existence of a relationship between internet addiction and psychological adoption and suggest the importance of conducting such study on Jordanian students especially during puppetry and adolescence stage.

The Study's Problem and Questions

No doubt that the spread of internet technology and the great demand for its uses on one hand, and the negative effects of internet addiction on the individual's psychological, physical and social health on the other hand, indicate the necessity of exploring the level of Jordanian students addiction and exploring the relationship between internet addiction and psychosocial adaptation. In addition, and in the light of the scarcity of the local and regional studies which investigate the negative effects of internet addiction on the teenagers and youngsters health in the Arab world, especially under the absence of the direct control of the family and educators in general, this creates a strong motive and justification to explore this relationship. The problem of the study focuses on predicting the effect of the different domains of psychosocial adaptation on internet addiction among Jordanian high basic stage students. The study will also investigate the impact of a number of variables related to the use of the internet as effective and predictive variables of internet addiction. The problem of the study can be summed up by answering the following questions:

First question: What is the level of internet addiction among Jordanian high basic stage students?

Second question: Can psychosocial adaptation and other demographic variables related to computer use significantly predict internet addiction among basic stage students?

Third question: Are there statistically significant differences in psychosocial adaptation scores between internet addicts and non-addicts?

The Importance of the Study:

The importance of the current study pronounces through the followings:

- This study is among the newly studies in Jordan that explores the relationship of the study's variables to internet addiction.
- This study contributes in helping psychologists to identify the spread of internet addiction among Jordanian high basic stage students, and also helping them in placing suitable instructive, protective and curative plans based on awareness and education concerning the appropriate and positive use of the internet.

Definitions:

Internet addiction: It is the inability of the individual to control the use of the internet. For the purpose of the present study, it is defined by the score the student gets on the internet addiction scale which was developed by the researchers in this study.

Psychosocial adaptation: The individual's attempt to overcome the obstacles that stand against realizing their needs or motivations in order to fulfill their personal and social needs. Procedurally, it is defined by the total score and the sub-dimension scores the individual attains on Rescale & Achenbach (2001) scale.

Methodology and Procedures

Population and Sample of the Study

The population of the study consisted of all the male and female (8^{th}, 9^{th}, and 10^{th}) grades students (23951) at the public schools of Zarqa governorate-Jordan. The study sample consisted of (600) male and female students of the (eight, ninth, tenth) grades. The sample was chosen within a cluster random method. Table (1) shows the distribution of the sample's members according to gender and grade.

Table (1): The Distribution of the Sample's Members According to Gender and Grade Variables

Gender	Grade			Total
	Eighth	Ninth	Tenth	
Male	108	112	97	317
Female	94	87	102	283
Total	**202**	**199**	**199**	**600**

Tools of the Study

First: Internet addiction scale: After referring to the theoretical literature and previous studies (Abdil-Hameed, 2005; Al-Farah, 2004; Beard, 2002; Davis, 2001; Young & Rodeger, 1998), and some former scales (Al-Anzi, 2010; Miqdadi & Sammour, 2008; Nimr, 2008; Awwad, 2006; Abu Jidi, 2004; Young, 1998), the following dimensions were assigned to the scale: social, psychological, academic, health, physical, activities practiced on the internet, religious, and time spent on the internet. Also, (45) items were distributed over the seven dimensions. After the scale was initially developed, several procedures were conducted to ensure the validity and reliability of the scale. In terms of content validity, the scale was judged by (10) faculty members in psychology in order to judge its relevance to the age group and the accuracy and clarity of the items. Considering the consensus of 80% of the remarks of the judges, (6) items were modified and (1) item was discarded making the final number of the scale (44) items. To ensure construct validity, correlations coefficients for each of the scale's items with the total score and the dimension scores were calculated based on the data from a pilot sample of (50) male and female students outside the study's sample. All correlations were significant and above .20. To measure the reliability of the scale through test-retest-method, a Pearson's correlation revealed a correlation of (.88) for the total score and (.85-.93) for the dimensions. Also, internal consistency using Chronbach Alpha was calculated and it was (.96) for the total score and (0.57-0.92) for the dimensions. The final scale consisted of 44 items and the range of scores was from 44 to 220, using five Likert type responses (strongly agree, agree, neutral, disagree, and strangely disagree).

Second: psychosocial adaptation scale: The Achenbach self-report scale for youth (YSR) was used (Achenbach & Rescoral, 2001). This scale consisted of (89) items covering eight sub-dimensions designed to evaluate the maladaptation aspects resulted from personality and conduct disorder of the age group (11-18) years, namely: anxiety/depression, withdrawn/depression, physical complaints, social problems, thinking problems, conduct rules violation, aggressive behavior and attention problems dimensions. This original scale had many indicators for validity and reliability such as factorial validity and criterion validity through similar scales (Auerbach & Lerner, 1991), test-retest reliability and internal consistency (Aschenbach & Rescorla, 2001). The original scale was translated to Arabic and blindly back to English to ensure accuracy of translation. To ensure the validity of the translated copy of the scale, content validity was established by judging the scale by (12) psychologists for appropriateness to the age group, and the accuracy and clarity of the items. Only (84) items were accepted by the consensus of 80% of the judges and some items were modified according to their suggestions. The construct validity of the scale was extracted through finding the corrected correlation coefficients for each item with the total score and the dimension scores. Seven items did not reach the (.20) correlations and were dropped. The reliability of the scale was checked by calculating two types of reliability, a test-retest revealed a Pearson correlation coefficient of (.90) for the total score and (0.85-0.93) for the dimensions, and an internal consistency using Chronbach Alpha revealed a coefficient of (.95) for the total score and (0.64-0.88) for the dimensions. The final scale consisted of (77) items and the range of scores were (77-385), using five Likert-type responses (always, most of times, sometimes, seldom, and never).

Results of the Study

To answer the **first question** regarding "what is the level of internet addiction among Jordanian high basic stage students"?, the total score was calculated on the internet addiction (range; 44-220) and each subject was classified based on the following norms; scores (44-110) were considered non-addicts, scores (111-174) probable addicts and scores (175-220) internet addicts following the classification of Young (Young, 1996). Then, the frequencies, percentages, means, and standard deviations of the sample's performance were showed in table (2).

Table (2): The Frequencies, Percentages, Means, and Standard Deviations of the Internet Addiction among Jordanian High Basic Stage Students

Internet addiction Scores	Frequency	Percentage	Means	Standard deviation
Addict (175-220)	51	8.5		
Probable addict (111- 174)	370	61.7		
Non-addict (44 – 110)	179	29.8		
Total	**600**	**100.0**	108.47*	21.992

Table (2) reveals that the number of addict students among the study's sample were (51) male and female students (8.5%) of the total subjects, while the number of students who had a tendency to internet addiction were (370) male and female students (61.7%), and the non-addicted students were (179) students (29.8%) of the sample. The means of the internet addiction was (108.47) and this expresses a low level of internet addiction among the sample. To answer the **second question** regarding **"**Can psychosocial adaptation and other demographic variables related to computer use significantly predict internet addiction among basic stage students"?, a multiple linear regression analysis was conducted. The following variables were considered to be independent variables: the psychosocial adaptation dimensions, hours spent on the internet per day (2-4, 4-8, 8-12, 12 and more), years of internet use (1-3, 3-6, 6 and more), and kind (s) of activities practiced (checking e-mail and social media sites) such as Facebook, Twitter, Fiber…), games, searching for information and listening to and loading songs and movies). The internet addiction variable was considered to be a dependent variable. Table (3) shows the results of the multiple regression analysis.

Table (3): The Results of Regression Analysis Predicting Internet Addiction

Variable	Constant	B	R	R2	F	P
Attention problem	1.898	.180	.397	.157	86.3	.000
Hours spent on the internet	1.793	.058	.455	.207	60.3	.000
Checking e-mail	1.863	-.198	.481	.231	46.1	.000
Physical complaints	1.779	.113	.498	.248	37.8	.000
Anxiety/depression	1.936	-.173	.523	.273	34.4	.000
Social media	1.880	.221	.536	.287	30.6	.000
Years of internet use	1.958	-.045	.558	.311	29.4	.000
Social problem	1.953	.072	.566	.320	26.7	.000

Table (3) explains that the eight above mentioned variables contributed in interpreting 32% of the variance of the internet addiction. These weights were distributed as follows: 15.7% attention problems, 5% hours spent on the internet per day, 2.4% checking e-mail, 1.6% physical complaints, 2.5 % anxiety/depression, 1.4% social sites, 2.5% years of internet use and 9% social problems. To answer the **third question** regarding "Are there statistically significant differences in psychosocial adaptation scores between internet addicts and non-addicts"?, means and standard deviations of the students' scores on the psychological adaptation and its dimensions were calculated and shown in table (4).

Table (4): Means and Standard Deviations of the Students Scores on the Psychosocial Adaptation Scores and Dimensions

Dimensions	Addiction status	Means	Standard deviation	Frequencies
Anxiety/ depression	Addict	2.92	.856	51
	Non-addict	2.77	.815	179
	total	2.80	.825	230
Withdrawn/ depression	Addict	2.91	.968	51
	Non-addict	2.66	.780	179
	total	2.71	.829	230
Physical complaints	Addict	3.30	.959	51
	Non-addict	2.14	.949	179
	total	2.40	1.065	230
Social problem	Addict	2.77	1.126	51
	Non-addict	2.07	.807	179
	total	2.22	.933	230
Thinking problems	Addict	3.04	1.109	51
	Non-addict	2.29	.841	179
	total	2.45	.957	230
Violation of conduct rules	Addict	3.05	1.028	51
	Non-addict	1.93	.804	179
	total	2.18	.974	230
Aggressive behavior	Addict	2.97	.983	51
	Non-addict	2.25	.704	179
	total	2.41	.828	230
Attention problems	Addict	3.13	1.093	51
	Non-addict	2.13	.754	179
	total	2.35	.935	230
Total score	Addict	2.99	.801	51
	Non-addict	3.72	.616	179
	total	3.56	.726	230

Table (4) shows differences between the means of psychosocial adaptation scores (dimension and total scores) due to addiction status. In order to test whether these differences are significant, one-way multivariate analysis was used to test for differences in scores of the dimensions of the psychosocial adaptation scale as shown in table 5.

Table (5): Results of One-Way Multivariate for Significance Differences in Scores of Psychosocial Adaptation Dimensions Due to the Level of Addiction

Source	Dimensions	SS	DF	F	P
Addiction Hotling= 0.779 F=000	Anxiety/depression	.820	1	1.207	.273
	Withdrawn/depression	2.402	1	3.531	.062
	Physical complaints	53.586	1	59.236	.000
	Social problems	19.875	1	25.249	.000
	Thinking problems	22.607	1	27.523	.000
	Conduct rules violation	49.661	1	67.489	.000
	Aggressive behavior	20.428	1	34.093	.000
	Attention problems	39.376	1	55.826	.000
Error	Anxiety/depression	154.896	228		
	Withdrawn/depression	155.115	228		
	Physical complaints	206.250	228		
	Social problems	179.471	228		
	Thinking problems	187.277	228		
	Conduct rules violation	167.772	228		
	Aggressive behavior	136.615	228		
	Attention problems	160.813	228		
Total	Anxiety/depression	155.716	229		
	Withdrawn/depression	157.518	229		
	Physical complaints	259.836	229		
	Social problems	199.346	229		
	Thinking problems	209.884	229		
	Conduct rules violation	217.433	229		
	Aggressive behavior	157.044	229		
	Attention problems	200.188	229		

Table (5) indicates the existence of statistically significant differences (P = 05.) due to the internet addiction level in the dimensions of physical complaints (F 59.236), social problems (F 25.24), thinking problems (F 27.52), Conduct rules violation (F 67.48), aggressive behavior (F 34.09), and attention problems (F 55.82. In addition, t-test was used to examine the differences in means of psychological adaptation total scores between internet addicted and non-addicted students as shown in table (6).

Table (6): T-Test to Examine the Differences among the Means of Psychosocial Adaptation of Internet Addict and Non-Addict Students

Variable	Addiction level	Mean	SD	T	P
Psychosocial adaptation	Addict	2.99	0.801	6.927	0.000
	Non-addict	3.72	0.616		

Table (6) reveals statistically significant differences among the psychosocial adaptation scores means for internet addicts and non-addicts where the differences were in favor of the non-addicts. The psychosocial adoption mean of internet non-addicted students was (3.72) while the psychosocial adaptation mean of internet addicted students was (2.99). This result indicates that the internet non-addicted students are better adopted than addicted students.

Discussion

The results revealed a low level of internet addiction for the overall sample. This may be attributed to the nature of the Jordanian society where the family still reserves some control and guidance over children. Moreover, this conclusion could be supported by nature of the present study's sample subjects who are still school-students and they are normally involved more with peers or family activities which in turn reduce the possibility of internet addiction. Consequently, the results of this study is supported by results from Anderson (2000) where the percentage of addicts amounted 10%, and the results of Greenfield (1998) in which the percentage of addicts was 5.7% of the sample. However, the results contradict with the results of Young's (1996) where the percentage of addicts was 80% of the sample, and results of Miqdadi & Sammour (2008) which pointed out that the internet addicts were 13.3%,. It is worth mentioning that the discrepancy among the previous studies in the percentage of internet addiction spread may be due to the way of sample selection and the method in measuring addiction. It should also be mentioned that the percentage of internet addicts is significantly high with the participants in studies on-line while it was moderate in face- to-face studies. The results also showed that four dimensions of the psychosocial adaptation scale and four variables related to the use of the internet explained 32% of the variance in internet addiction. The four dimension of the psychosocial adaptation variable were attention problems, physical complaints, anxiety and depression, and social problem. The four variables related to the use of the internet explained were hours spent on the internet per day, checking the e-mail, visiting social sites, and years of internet usage.

This result indicates that the internet is attractive to those who suffer problems in psychosocial adaptation as one of the correlated factors with isolation, anxiety, depression, difficulty of focus and social problems in general because that encourage them on electronic communication away from social pressures. Using the internet does not require those people to learn special skills and give them an area of freedom to avoid dealing with their psychosocial problems. These finding are consistent with results of many studies stated that depression, distraction, over activity, social anxiety, self-esteem and power of motivation are the most predicting variables of internet addiction (Armstrong et.al., 2000; Oh, 2003; Yoo et al., 2004; Shepherd & Edelmann, 2005). As for the variables related to internet use which contributed in internet addiction, this can be explained because internetprovide them with many communication channels that may attract individuals and provides the users with the ability to send and receive the desired information promptly. This might also be due to the fact that all activities practiced by the internet addicts are interesting and cannot be avoided by other means, especially in this age phase such as getting and sending messages to a friend in a few seconds, talking to friends for long hours without a high cost and making new friends all over the world. Many users affirmed that the internet with its diverse activities became their main source of information and knowledge and fulfillment of the needs with friends. These findings are consistent with results of (Young, 1997; Abu-Jidi, 2004; Chou & Hsiao, 1999; Lin & Tsai, 2001; Al-Hajiri, 2004) which pointed out that the addict uses the internet for long hours a day, and that they spend most of their time on activities related to chatting, e-mail and social sites. Furthermore, the results showed statistically significant differences in psychosocial adaptation according to internet addiction levels, indicating that the level of psychosocial adaptation among the non-addicted students was higher than that of the internet addicted students.

This could be because the students who have psychosocial adaptation are able to know the nature and causes of their feelings and can realize their strength and weakness points. They also have self-confidence, strictness and ability to make decisions. They also are aware of the feelings, needs and interests of others and have the skill of attracting people. Therefore, the internet addicted students overuse the internet as they have no-self-confidence to confront others and deal with them. They are also unable to identify their needs and interests, so they resort to the internet as a means of escape (Al-Atrash, 2000). This result agrees with the findings of kim et al,. 2004, Sari, 2005, Yang et al., 2005, and Miqdadi & Sammour, 2008 which pointed out that the overuse of the internet negatively affects the symptoms of psychosocial adaptation like depression, anxiety, loneliness, nervousness, impatience, moodiness, feeling guilt, withdrawal, suicidal ideas and aggression. The results disagree with the studies of Scealy & Stevenson, 2002 and Larry & Lindsy, 2002 which showed that the internet had a positive effect on individuals as it reduced the feelings of social loneliness, depression and isolation. In the light of the results of the present study, we recommend conducting more studies on the internet addiction scale to explore its capacity to measure this phenomenon within various populations and ages. Also, recommending school specialists and parents to pay more attention to their kids in term of signs of internet addiction such as hours of usage, dependency on the internet, and lack of social activities, in order to targeting them with appropriate interventions.

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