



Internet Addiction among Secondary School Students and Their Awareness of Its Psychosocial Consequences

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ABSTRACT

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Background: The Internet has become an essential part of modern life, used by a large number of people of all ages, especially teenagers. Therefore, the number of its users around the world is increasing daily, exposing some to its negative effects such as Internet addiction (I.A.). Internet Addiction is the frequent and reckless use of electronic devices, which may be present for a long time when engaging in non-work-related activities which can lead to physical, social, psychological, and academic problems.

Objectives: The current study was conducted to determine the I.A. level among secondary school students and determine the extent of their awareness effects of I.A.

Methodology: A cross-section descriptive study design was used through present research from the period of 10th December 2022 to 30th December 2023; the total participants were 765 secondary school students, (390) girls, and (375) boys, recruited from Ten secondary schools in the center and districts of Babylon Governorate in Iraq. The data were gathered by utilizing the structured questionnaire and the interview technique with the participants.

Results: The research finding revealed that (69.9%) of the sample recorded a high level of I.A. The majority of Internet addicts are males. Most of the study participants have a fair level of awareness about the psychosocial effects of I.A.

Conclusion: According to the research findings, secondary school students recorded a high level of I.A. with males being the majority among Internet addicts. Most participants demonstrate fair awareness of the psychosocial effects of I.A., and females show higher awareness compared to males. The Internet addiction level among the study sample is not affected by their level of awareness of its psychosocial effects.

Recommendations: The researcher recommended that cooperation between the school and parents is necessary to limit the spread of the phenomenon of Internet addiction. Also, recommend conducting similar research on a different sample using new independent variables

Keywords: Internet, Addiction, Psychological, Social, Awareness, Effects.

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INTRODUCTION

The Internet is widely regarded as indispensable in people's daily lives globally, serving diverse purposes such as personal communication, business, education, sports, and entertainment. Its profound impact on global communication and the sharing of ideas and information about culture and society is evident, shaping a connected worldwide community ⁽¹⁾. On the other hand, the number of social network users in the world is steadily increasing day by day. Most people nowadays, especially young people, use social networks regularly. Which exposes them to some harmful effects as a result of the increased use of the Internet ⁽²⁾. Internet Addiction is described as the frequent and reckless use of electronic devices, which may be present for a long time when engaging in non-work-related activities ⁽³⁾.

The symptoms of Internet Addiction, also known as "pathological Internet usage" or "network behavior dependence," include problematic and excessive Internet use, signs of withdrawal and tolerance, and problems with relationships, mental health, and social development ^(3, 4). One of the psychological issues that lowers adolescent academic achievement is excessive use of the Internet ^(5, 6). Internet misuse and Internet abuse can result in I.A. which is classified as an impulse control disorder ⁽⁴⁾. It has been described as an excessive preoccupation with desires or behaviors related to smartphone use, as well as Internet access or its mismanagement, which causes impairment or suffering. Internet addiction disorder has received significant attention in the media as well as among scientists, and this focus is consistent with advances in technology and access to the Internet ^(6, 7).

Many Internet users now face these issues the main signs of I.A. are mood swings, preoccupation, and an unwillingness to set time limits for using the Internet and related electronics ⁽⁸⁾. This could affect other aspects of life, such as work performance, family ties, and academic success ⁽⁹⁾. A variety of risk factors are associated with I.A., including socio-demographic characteristics (such as male gender, younger age, and relatively high family income), Internet use patterns (such as online activity, use of social applications and games), psychological variables (such as impulsive behavior, neuroticism,

and isolation), and the accompanying pathological symptoms (such as depressive episodes, tension, and general psychopathology), which means that these factors contribute to increasing vulnerability to growing Internet use-related hazards ^(10, 11).

Furthermore, several studies have identified social difficulties, introversion, and inadequate interpersonal interaction skills as prevalent factors contributing to Internet addiction. Online interaction provides a safe alternative for individuals facing the above difficulties, enabling them to avoid the rejection and anxiety associated with direct interpersonal communication ^(12, 13). Teenagers who are Internet addicts are more prone to experience mental health issues than other teenagers who are considered to be regular Internet users. Some of the symptoms include sadness, feeling depressed, and losing interest in routine activities ⁽¹⁴⁾. Media multitasking (constant use of multiple social media platforms to maintain low self-esteem), which is associated with depressive and social anxiety symptoms, is also present among adolescents with Internet addiction disorder ⁽¹⁵⁾. Adolescents shape their reality by integrating offline and online environments, where the online world becomes dominant. Traditional activities like reading and outdoor recreation are increasingly replaced by the allure of new media and electronic devices among children and teenagers ⁽¹⁶⁾.

AIMS OF THE STUDY

The current study was conducted to determine the I.A. level among secondary school students and determine the extent of their awareness effects of I.A.

METHODOLOGY

- The Study Design

The study conducted in Iraq/Babylon Governorate from December 10, 2022, to December 30, 2023, utilized a cross-sectional descriptive approach to examine the level of Internet Addiction (I.A.) among secondary school students. Descriptive cross-sectional research assesses the disease or condition, together with any pertinent contributing factors, in a specific population at a given moment.

Cross-sectional research can be understood as a momentary depiction of the occurrence and characteristics of a disorder in a community. This type of data can be used to assess the prevalence of a population's ailment. Nevertheless, it is important to note that drawing inferences about causality from this type of research should be avoided due to the simultaneous measurement of exposure and disease status. Typically, it is challenging to determine the chronological order of the exposure and the disease.

- Sample and Sampling of the Study

The current study included a sample size of (765) secondary school students, there were (390) girls and (375) boys, recruited from ten secondary schools distributed in the center and districts of Babylon Governorate in Iraq. The sample is a miniature model of the study population used by the researcher to research it. To ensure that the population of the research is properly represented, and to accomplish the goal of the research, the researcher utilizes the simple random sampling approach to select the sample.

- The Instrument of Study

The questionnaire consists of closed-ended questions, which require respondents to choose from a limited set of possibilities, usually in a multiple-choice format. The questionnaire form, consisting of three sections, was designed to cover all aspects of the study. The first part was the sociodemographic characteristics of the participants included (Sex, and grade level), and the second part included a scale to identify the I.A. level among participants. The Internet addiction test was introduced in 1996 at the University of Pittsburgh in Bradford/United States by psychologist and psychiatrist Kimberly Young⁽¹⁷⁾. The tool was modified and developed by the researcher to suit the purposes of the current study. This test consists of 20 items with the 3-Likert Scale (always, sometimes, and never). The researcher built the third part of the questionnaire to measure the awareness of secondary school students of the psycho-social

effects of I.A., this scale consists of 20 items on a 3-Likert Scale (Aware, somewhat aware, and I don't aware).

Specific scores for the responses to the Internet addiction scale and the scale of awareness of the psychosocial effects of Internet addiction were calculated through the weighted mean for the Three-Likert scale, which is represented by the following equation:

Range of Score = (Max-Min) / (Rating) = (3-1 / 3 = 0.66). For the internet addiction scale to identify the level of (I.A.): The range of mean 1-1.66: Considered to be low Addiction (L.A). 1.67 – 2.33: Classified as moderate Addiction (M.A), and from 2.34 to 3.0 is considered high Addiction (H.A). For the scale of awareness of the psychosocial effects of Internet addiction to detect the awareness level. A value between 1 and 1.66 is considered (Poor) awareness. the value between 1.67 and 2.33 is considered (Fair) awareness, and the value between 2.34 and 3.0 is considered (Good) awareness.

- Reliability and validity of the Questionnaire

Data was collected through the use of a special questionnaire which was presented to (10) experts in various fields of nursing. They are (2) pediatric, (2) psychiatric, and (6) community nursing. It was also presented to (1) a statistician and (1) a linguistic expert.

The instrument reliability was applied by the researcher to test the internal consistency of the tool on the pilot sample, which consisted of (70) students, to assess the reliability of the internal tool before data collection. Alpha-Cronbach and person correlations are calculated by using the Social Sciences Statistical System [SPSS] of reliability analysis. Reliability results for Two Scales were more than 80%.

- Data Collection

The data were gathered by utilizing the structured questionnaire and the interview technique with the participants. Data collection tools were distributed in the period from 5th October until 30th November 2023; under the observation of the

teachers and the researcher after the required explanations were presented. Students were instructed that they weren't needed to enter their names on the questionnaire.

- Data Analysis

The International Business Machines Corporation (IBM), version (26) of SPSS was used for both data entry and analysis. Frequencies and proportions were used for the categorical variables, whereas the standard deviation and arithmetic mean were used to illustrate continuous data. The chi-square and binary logistic regression multivariate analysis were used in the analysis; a P value < 0.05 denoted the level of statistical significance.

"The following abbreviations are used to the measurement of comparable significance"

- "H.S: High statistical significant (P. value \leq 0.01).
- "Sig.: Statistically significant (P. value \leq 0.05).
- "N.S.: Non. Statistically significant (P. value > 0.05).

Ethical Considerations:

The study was carried out in compliance with moral guidelines derived from the Helsinki Declaration. Before sample collection, the students gave their verbal and written agreement for the study to proceed. In compliance with Document No. 511 (June 11, 2023) the local ethics committee reviewed and approved the protocol of the study, subject information, and consent form.

RESULTS

Table (1): The Study Sample Distribution according to their Demographic Information (N= 765)

Demographic Variables	Rating & Intervals	F	%
Gender	Male	375	49.0%
	Female	390	51.0%
Grade Level	Fourth	285	37.3%
	Fifth	236	30.8%
	Sixth	244	31.9%
Total		N= 765	100%

Table (1) illustrates that the total study sample consisted of (765) students from secondary schools in Babylon Province of both genders, most of whom were females (n = 390; 51%) compared to males (n = 375; 49%). They were from three grade levels, where the highest participation rate was from the fourth grade (n = 285; 37.3%).

Table (2): Overall Internet addiction level among secondary school students

Scale	Min.	Max.	Mean	S.D	Score	N	%
Internet Addiction Scale (20 Q)	2.00	2.90	2.4367	.20713	High	535	69.9 %
					Moderate	230	30.1 %
					Low	0	0
					Total	765	100 %

S.D: Standard Deviation. High Addiction (H.A): Mean > 2.33, Moderate Addiction (M.A): Mean = 1.67 – 2.33, Low Addiction (L.A): Mean <1.

Table (2) results showed that most secondary school students (n=535; 69.9%) have a higher level of I.A. and (n=230; 30.1%) of them had a moderate level of I.A.

Table (3): Internet Addiction Levels to Socio-demographic Characteristics of Secondary School Students

Demographic Variables	Rating & Intervals	Internet Addiction Levels		
		High N (%)	Moderate N (%)	Low (N)
Gender	Male	295 (78.7%)	80 (21.3%)	0
	Female	240 (61.5%)	150 (38.5%)	0
Grade Level	Fourth	194 (68.1%)	91 (31.9%)	0
	Fifth	156 (66.1%)	80 (33.9%)	0
	Sixth	185 (75.8%)	59 (24.2%)	0

The results of Table (3) showed that (69.9%) of the study sample have a high level of Internet addiction. Males recorded the highest level of I.A., with a rate of (78.7%), compared to females, who scored (61.5%). The respondents from the sixth grade recorded the highest addiction rate (75.8%) compared to other educational stages, followed by the fourth grade (68.1%), and finally the fifth grade (66.1%).

Table (4): Overall Level of Awareness of the Psychological Effects of Internet Addiction among Secondary School Students

scale	Min.	Max.	Mean	S.D	Score	n	%
Awareness of the Psychological Effects Of I.A Scale (20 Q)					Good	307	40.1%
	1.50	3.00	2.27	.28872	Fair	440	57.5%
					Poor	18	2.4%
					Total	765	100 %

Good Awareness: Mean > 2.33, Fair Awareness: Mean = 1.67 – 2.33, Poor Awareness: Mean < 1.67.

Table (4): Out of (765) participants, more than half of them (57.5%) have a fair level of psychosocial awareness of the effects of I.A., and (57.5%) recorded a good level. And only (2.4%) have a poor level of awareness.

Table (5): level of Awareness of the Psychosocial Effects of Internet Addiction Concerning Socio-Demographic Variables for the Study Sample.

Demographics Variables	Rate & Intervals	Level Of Psycho-Social Awareness		
		Good N (%)	Fair N (%)	Poor N (%)
Gender	Male	106 (28.3%)	251 (66.9%)	18 (4.8%)
	Female	201 (51.5%)	189 (48.5%)	0 (0%)
Grade Level	Fourth	128 (44.9%)	152 (53.3%)	5 (1.8%)
	Fifth	96 (40.7%)	132 (55.9%)	8 (3.4%)
	Sixth	83 (34.0%)	156 (63.9%)	5 (2.0%)

Table (5) revealed that (57.5%) of the study sample have a fair level of psychosocial awareness about the effects of internet addiction. Females recorded a higher level of psychosocial awareness (51.5%) than males who scored (28.3%). The respondents from the fourth grade recorded a good psychosocial awareness rate (44.9%), followed by the fifth grade (40.7%), and the sixth grade (34.0%).

Table (6): The Correlation Coefficient between Internet Addiction and the Awareness of its Psychosocial Effects among the Study Sample

Dependent Variable	Independent Variables	R	Sig.
Internet Addiction	Awareness of Psychosocial Effects of Internet Addiction	*-.104	.004

R: Person Correlation Coefficient, Sig: Significance. *Correlation at the 0.01 level (2-tailed) is significant.

Table (6): data indicates a statistically significant association between addiction to the Internet and awareness of its psychosocial effects. The value of this relationship was (-.104) with a sig-value of (.004) which means that the p-value < 0.01.

Table (7): The Effects of Predictive Variables on the level of Internet Addiction among the Study Sample

Dependent Variable	Predictors Variables (Exploratory)	R	R ²	F.test	Sig	B	T.test	Sig.	VIF
Internet Addiction	Awareness Of Psychosocial Effects Of Internet Addiction	-.105	.011	4.240	.015	-.071	-2.552	.011	1.148

R: Person Correlation Coefficient, B: beta, VIF: Variance inflation factor.

Table (7) The rate of beta, which explains the correlation between addiction to the Internet and awareness of psychosocial effects, came with a value of (-.071), which is statistically significant as it can be deduced from the value of the T-test with a sig-value of (.011), which is a P-value > 0.05, meaning that the higher the level of awareness of the psychosocial effects by one unit, the lower the level of addiction to the Internet by (7.1) units.

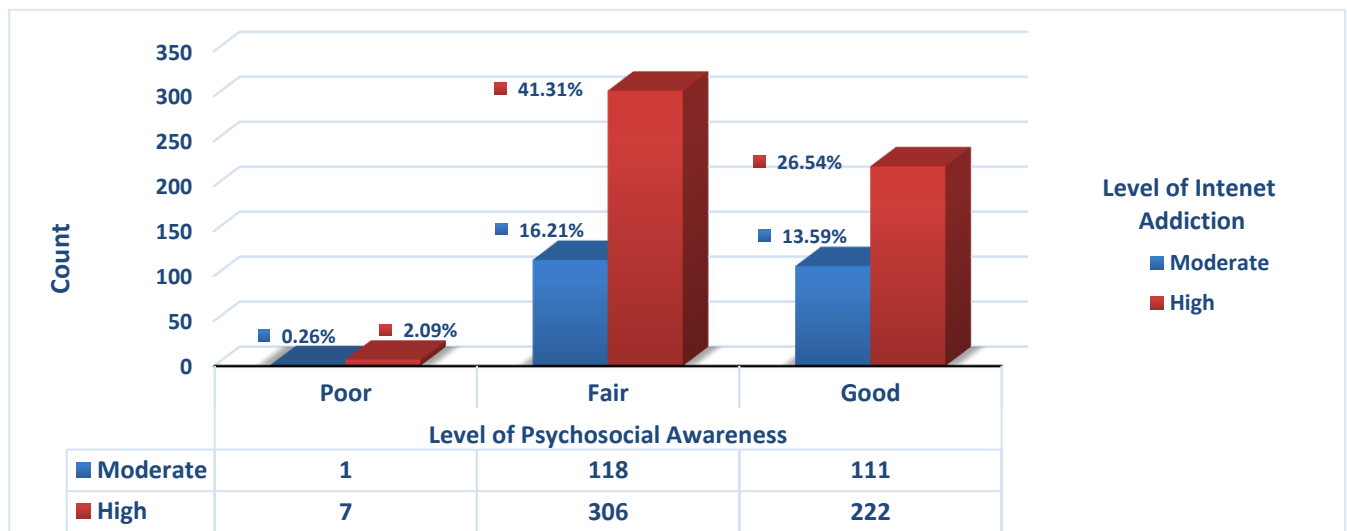


Figure (1): Levels of Internet Addiction based on Participants' Awareness of its Psychosocial Effects.

According to the data shown in Figure (1), (16.21%) of the participants who had moderate awareness of the psychosocial effects of Internet addiction recorded a high level of addiction, while (26.54%) of them who had a good level of awareness recorded a high level of addiction. Only (2.09%) of participants with low awareness indicated a high degree of Internet addiction.

DISCUSSION:

The present research design is a cross-sectional descriptive that consisted of (765) students of both genders, females (n = 390; 51%) and males (n = 375; 49%). They were in three grade levels (fourth, fifth, and sixth). The recognition of the phenomenon of I.A. as a mental illness is still under debate. However, it has been identified as causing many complex psychological problems associated with an increased risk of social, physical, and mental illness. The important element of the issue of Internet addiction is how common it is among people, especially school-age youth. The primary aim of the present study is to detect the level of I.A. among secondary school students in Babylon Province.

According to Table (2), results showed that most secondary school students (69.9%) have a higher level of I.A. and (30.1%) of them have a moderate level of I.A. Seventeen items on the scale recorded a high level of I.A. and the scale as a whole came with a weighted mean of (2.43) > (2.33). According to the present study's findings, I.A. is very common among secondary school students. This result is supported by previous findings reported by those studies (18, 19, 20, 21, and 22). All the results of these studies confirmed the existence of a widespread phenomenon of I.A. among secondary school students in various countries of the Western and Eastern world.

According to the results of Table (3), it was found that the level of I.A. in males (78.7%) is more than that of females (61.5%). This result was in agreement with various previous studies conducted by those studies (23, 24, 25, and 26). All the results of these studies indicated that the percentage of Internet addiction among males is higher than among females. However, these results are not consistent with those obtained by those studies (27, 28, and 29), whose results confirmed that females are more addicted to the Internet than males. According to (23, 3), reached different results than the above, as they found that Internet addiction is similar in both

genders, male and female. The respondents from the sixth grade had the highest percentage of addiction (75.8%) of the other educational stages, this result is consistent with those studies (2, 18, 21, and 32). Their results confirmed that the level of Internet addiction increases with the progress of the student in the study stage.

Table (4) more than half of the study sample (57.5%) have a fair level of psychosocial awareness of the effects of I.A., and (40.1%) recorded a good level. And only (2.4%) have a poor level of awareness. The scale as a whole had a weighted mean of (2.37) > (2.33).

The results of Table (5) revealed that females recorded a higher level of psychosocial awareness (51.5%) than males, and the respondents from the fourth grade recorded a good psychosocial awareness rate (44.9%). Table (6) shows that there is a relationship between addiction to the Internet and awareness of its psychosocial effects. The results of Table (7), showed that the level of I.A. is affected by the individual's degree of awareness of the psychosocial effects caused by his addiction. That is, the higher the level of awareness of the psychosocial effects by one unit, the lower the level of I.A. by (7.1) units. Through the findings of past tables above, it is clear that I.A. is widespread and dominant to a large extent among the study sample. Despite their level of awareness of some of its side effects, they did not take the necessary measures to avoid it. This shows that having a little awareness of its negative effects does not have a significant effect on controlling it. In general, individuals should be aware of all possible negative effects of Internet addiction and learn how to strike a healthy balance between Internet use and their personal psychological, social, and academic lives.

Through the findings of the tables (4, 5, 6, and 7), it is clear that I.A. is widespread and dominant to a large extent among the study sample. Despite their level of awareness of some of its side effects, they did not take the necessary measures to avoid it. This

shows that having a little awareness of its negative effects does not have a significant effect on controlling it. In general, individuals should be aware of all possible negative effects of Internet addiction and learn how to strike a healthy balance between Internet use and their personal psychological, social, and academic lives.

Awareness of the risks is an essential step in dealing with any problem, including Internet addiction. Some of the reasons why awareness of the problem is important are:

1. Helps in recognizing symptoms and warnings that may indicate a problem with Internet use. When a person is aware of these symptoms, they can take the necessary steps to overcome them.
2. Provides a deeper understanding of what happens when there is an over-reliance on the Internet. Anyone can understand the psychological and social effects associated with this addiction and the impact it has on their lives and relationships.
3. If a person is aware of the problem of addiction to the Internet, this makes him seek to search for sources of support and learn how to deal with the problem and obtain the necessary treatment if necessary.

In general, a person's awareness of the problem of Internet addiction gives him the ability to make sound decisions and effectively control his digital life. This result is supported by findings reported by Jiang and Leung ⁽³³⁾ the results of the study found that people are more likely to take preventive actions and develop coping mechanisms when they understand the potential consequences of a health concern.

CONCLUSIONS:

The research findings indicate that a significant percentage (69.9%) of secondary school students exhibit a high level of Internet Addiction, with males being the majority among Internet addicts. Most participants demonstrate fair awareness of the psychosocial effects of I.A., and females show higher awareness compared to males. The study identifies a

weak inverse correlation between the level of I.A. and awareness of its psychosocial effects, highlighting the impact of awareness on the degree of Internet Addiction in the study sample.

RECOMMENDATIONS:

1. The issue of internet addiction requires a collaborative effort between schools, families, and the community. It is crucial to provide students with awareness and support to ensure they use modern technology and the Internet appropriately.
2. Parents must also pay attention to their adolescent's psychological health and biological needs to prevent them from resorting to the Internet to escape reality.
3. The researcher recommends conducting similar studies on various educational categories or using different criteria and tools. This will help identify unique challenges faced by different groups of students and develop tailored solutions to meet their specific needs.

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Conflict of Interest

There are no conflicts of interest.

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