

Original paper

Prevalence and Possible Attributes of Internet Addiction Disorder among Students at the University of Kerbala

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Abstract

Background: Internet usage is tremendously growing, misuse and overuse called Internet Addiction (IA); the latter may lead to negative results, affect people's psychological, social, physical, and academic performance, especially students. IA is a growing problem worldwide among young people, including university students.

Objectives: To determine the prevalence of IA among university students and identifying associated factors.

Subjects and Methods: A cross-sectional study was conducted on 559 students of the first and third stages in four randomly selected colleges in the University of Kerbala. Data collection was done from 26th March to 29th April 2018. A self-administered questionnaire was used based on Arabic versions of the Internet Addiction Test (IAT). Analysis of the data was done by using SPSS version 20.

Results: The prevalence of IA was 68.7% (95% confidence interval (CI): 65.1%-72.5%) and severe IA was 10.2 % (95% CI: 7.7% -12.7%). IA levels were significantly associated with male gender, excessive Internet use, lower sleeping hours, sleeping late, difficulty awakening in the morning, and lower academic performance (P-value < 0.05). Further, internet addicts showed a higher prevalence of headaches, backache, and hand pain.

Conclusion: High level of IA was recognized among university students. IA levels were significantly higher among males. There was a positive association between IA and excessive internet usage, poor sleep habits, and lower academic performance. Higher IA level was associated with a higher prevalence of backache, headache, eye pain or redness, and pain in the hands because of sitting online for long periods.

Keywords: Internet addiction (IA), Internet Addiction Test (IAT), Social Networking Sites (SNS) University students, Kerbala.

Introduction

In the past decade, the great growth of the Internet in various telecommunications, education, business, entertainment, and other fields has turned the world into a small village. The Internet is an important tool to do many activities if used correctly, but if used in the wrong way, it excessively leads to multiple problems, including Internet Addiction (IA) ⁽¹⁾. Internet usage has been rapidly increasing worldwide, where about half of the world's population almost uses

the Internet in 2017. Iraq is ranked 71st out of 201 countries using the Internet globally and ranks fifth in the Arab world in 2017 ⁽²⁻⁴⁾. According to the Internet usage statistics, Internet users are increasing in Iraq. There are about 19,000,000 users (48.3 % of the population) in 2018, compared to 12,500 users (0.1% of the population) in 2000 and 25,000 users (0.1 % of the population) in 2002. Furthermore, Facebook Subscribers reached 17,000,000 Internet users in December/2017 ⁽⁵⁾.

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Internet addiction (IA) is a deterioration in the control of Internet use, leading to mental, behavioral, and physiological symptoms, which means that the person exaggeratedly uses the Internet "Net Dependent," which distorts his personal, family, or professional goals. Furthermore, IA led to a decline in the academic level, family relationships, aggressive behavior of the community, anxiety, and depression ^(1,6).

Previously, many psychiatrists believed that the term "Addiction" was called only for physical substances that cause addiction. However, in the last two decades, psychiatrists have begun to believe that addiction can have other things besides chemicals, such as compulsive gambling addiction, chronic overeating, and obsessive television watching. It was found that addiction to non-chemical substances is similar to addiction to chemicals, where they experience the same feelings of addiction. Researchers point to the presence of dopamine release "the pleasure neurotransmitter" in the nucleus during non-chemically induced excitation, producing a similar effect as alcohol and other drugs ⁽⁶⁻⁸⁾.

Although studies have focused on the IA over the past two decades, there has been controversy about the possibility of being included as an independent disorder in the latest Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) before being published by the American Psychiatric Association ⁽⁹⁾. Studies on IA among college students suggest that college students are more prone to online addiction than other categories. Further, younger Internet users are more susceptible to IA than older ones. Furthermore, some other psychological and environmental factors in university student life make them more susceptible to IA.

Excessive Internet usage refers to using the Internet anywhere from 40 to 80 hours per week with individual sessions up to 20 hours a day. Some studies indicate that using the Internet for 5 hours or more per day is a problem ⁽¹⁰⁾. IA provides emotional relief, mental escapism, and ways to avoid

problems so that IA might have the same effect as alcoholism, drug addiction, and gambling addiction. Therefore, it can be said that there are four incentives for IA, including applications, emotions, Life events, and cognition ⁽¹¹⁾.

Young classified online addiction into five types: 1-Cyber- sexual addiction to adult chat rooms or porn sites, 2-Addictive online relationships that replace real relationships, 3-Compulsion on online gambling or auctions or obsessively trade, 4-The compulsive search for information on the Internet, 5-Addiction to video games and programming via the Net ⁽⁴⁾.

This study aims to determine the prevalence of Internet Addiction among students at the University of Kerbala and identify associated Internet addiction factors.

Subjects and Methods

A cross-sectional study was carried out on the students at the University of Kerbala in the time frame from March 26 to April 30, 2018. A sample size of 500 students was assumed out of 27000 students at the University of Kerbala, with initial planning to have 250 from scientific colleges and 250 from humanities colleges. The colleges were selected randomly by a simple randomized method from the total 16 colleges at the University of Kerbala. Two from a scientific background, namely, the College of Pharmacy and the College of Engineering (with its civil, mechanical, and electrical departments selected randomly) and two of which are from a humanities background; College of Law and College of Education for Human Sciences (with its Geography, Psychology and English Language Departments selected randomly). Students from the first and third stages were included in the study. All students in the randomly selected classes were asked to fill the questionnaire forms.

The questionnaire is self-administered, distributed to the student's participants in classroom settings at a predetermined time arranged with the faculty of selected

colleges, after a short explanation of the study objectives and how to fill the questionnaire. After that, they were collected onsite, 15 to 30 minutes later. A total of 640 questionnaire forms were distributed to overcome non-returned or incompletely filled forms. So, 593 forms had been returned filled, and the remaining 34 forms were incomplete and had been excluded from this study. Thus, a total of 559 students were finally included in the study, and the response rate was 87.3%.

The survey includes three parts, the first covers the socio-demographic background of students, including age, gender, residence, marital status, college, stage, parents' education, and economic status. The latter was based on the student's subjective response to categorize their economic status as poor, medium, or good. At the same time, the second part includes questions related to the frequency of internet use, common internet sites, sleep patterns, and health complaints related to prolonged use and their study.

The third part has consisted of the Young's Internet Addiction Test (YIAT), which is the first global psychological questionnaire on Internet addiction, which has been widely around the world. Internet Addiction Test (IAT) was introduced in 1996 at the University of Pittsburgh, Bradford, by psychologist Kimberly Young. It is a 20-paragraph test with a hexadecimal measurement⁽¹¹⁻¹⁴⁾.

The overall Cronbach's alpha computed from the studies was 0.889 (95% confidence interval (CI) 0.884-0.895). Internet Addiction was measured using the Arabic version of the Young Internet Addiction test that was validated in a previous study carried out in Lebanon. In addition to using the Arabic version in previous studies with minor lingual correction⁽¹⁴⁻¹⁷⁾.

The IAT questionnaire consisted of 20 items measured on the five-point Likert scale. The IAT total score is the sum of the ratings given by the examinee for the 20 item responses.

Each item is rated on a 5-point scale ranging from 0 to 5. The maximum score is 100

points. Items of the Internet Addiction Test, each rated from 0 (not applicable) to 5 (always). After answering all the questions, the numbers for each answer are added to get the final result. The higher the level of scores, the greater the level of addiction to the Internet where the normal range between 0 to 30 points, mild IA between 31 to 49 points, moderate IA between 50 to 79 points, and severe IA between 80 to 100 points^(13, 18).

A pilot study has been conducted in the College of Engineering (first stage of the mechanical department) of the University of Kerbala. It was done on 22 students to assess the questionnaire's feasibility and overcome any difficulties or related issues during data collection.

Ethical approval for the study conduction was obtained from the Iraqi Ministry of Health-Department of the Arab Board for Health Specialization and the University of Kerbala/ College of Medicine. Accordingly, the faculty of Medicine sent an official letter to other faculties included in the study at the University of Kerbala. Further, the questionnaire was anonymous, voluntary, and confidentiality of answers kept.

The data were coded, tabulated, and analysed using (SPSS) version 20. Qualitative data were expressed as numbers (N) and percentages (%). Quantitative variables were expressed as mean $\pm$ standard deviation (SD). For numeric or continuous variables, the (Kolmogorov-Smirnov test) was used to test the hypothesis of normality. In the case of non-normal distribution, the equivalent non-parametric tests (Mann-Whitney and Kruskal-Wallis) were used. Parametric (Pearson's) or non-parametric (Spearman's) correlation coefficients were used. The 95% Confidence Intervals (CI) for ratios were obtained. A p-value of < 0.05 was considered statistically significant.

Results

A total of 559 students were finally included in the study, with an 87.3% response

rate. Of those, 285 (51%) were from scientific colleges and 274 (49%) from humanities colleges. 53.8% students of the first stage and 46.2% students of the third stage. The (mean $\pm$ SD) age of the participants was (20.75 $\pm$ 2.01) years, 58.3% were females, and 41.7% were males, 81.9% were from Kerbala governorate, 80.3% were urban residents, 7.2% were married, and 4.5% had considered themselves as poor as shown (Table 1).

Cronbach's Alpha among the study scales was 0.950 ($P < 0.001$) suggested a good internal consistency of the questionnaire. The minimum and maximum of total scores of

IAT from 0 to 98 scores; the range of total scores of IAT was 98 scores.

The results of the present study revealed that the prevalence of total IA 68.7% (95% confidence interval (CI): 65.1%-72.5%), as shown in (Figure 1). The minimum and maximum scores of total IA from 31 to 98 scores, respectively. The total IAT showed 31.3% were normal (95% CI: 27.5%-35.1%), 25.2% have mild IA (95% CI: 21.6%-29.0%), 33.3% have moderate IA (95% CI: 29.5%-37.0%), and those with severe IA were 10.2% (95% CI : 7.7% - 12.7%) as shown in (Figure 2).

Table 1. Socio-demographic data for the University of Kerbala students.

Variables		Total N = 559	
		N	%
College's types	Scientific	285	51.0
	Humanities	274	49.0
Colleges names	The pharmacy	127	22.7
	Engineering	158	28.3
	The law	126	22.5
	Education for Human Sciences	148	26.5
Stages	First	301	53.8
	Third	258	46.2
Gender	Male	233	41.7
	Female	326	58.3
Marital status	Single	517	92.5
	Married	27	4.8
	engaged	13	2.3
	Divorced	1	0.2
	Widow	1	0.2
Mothers' education	Illiterate	91	16.3
	Primary	105	18.8
	Secondary	270	48.3
	High education	93	16.5
Fathers' education	Illiterate	60	10.7
	Primary	50	8.9
	Secondary	251	44.8
	High education	188	33.6
Marital status of parents	Married	499	89.2
	divorce	6	1.1
	One or both was dead	54	9.7
Governorates	Holy Karbala	459	82.1
	Others	100	17.9
Residences	Rural	109	19.5
	Urban	450	80.5
Economic situation	Good	150	26.8
	Medium	384	68.7
	Poor	25	4.5

Table 2. Items levels percentages of the Internet Addiction Test.

Items of the Internet Addiction Test	Items levels percentages						
	Not Applicable%	Rarely %	Occasionally %	Frequently %	Often %	Always %	Total %
1-How often do you find that you stay online longer than you intended?	3.9	13.4	19.7	17.4	24.5	21.1	100
2-How often do you neglect household chores to spend more time online?	13.8	17.5	27.0	14.8	16.5	10.4	100
3- How often do you prefer the excitement of the Internet to intimacy with your partner?	23.8	17.5	20.6	12.5	14.3	11.3	100
4- How often do you form new relationships with fellow online users?	23.3	18.2	20.6	11.1	14.8	12.0	100
5- How often do others in your life complain to you about the amount of time you spend online?	25.4	20.6	19.7	10.4	11.4	12.5	100
6- How often do your grades or university work suffer because of the amount of time you spend online?	19.1	19.0	23.2	11.4	11.6	15.7	100
7- How often do you check your Internet sites like social media (Facebook) or other sites before something else you need to do?	12.7	17.7	18.2	13.4	14.8	23.2	100
8- How often does your job performance or productivity suffer because of the Internet?	16.1	20.6	22.7	12.3	14.5	13.8	100
9- How often do you become defensive or secretive when anyone asks you what you do online?	30.6	17.6	17.2	13.1	12.0	9.5	100
10- How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?	12.2	15.4	21.3	12.2	15.9	23.0	100
11- How often do you find yourself anticipating when you will go online again?	10.6	14.7	19.5	15.9	15.7	23.6	100
12- How often do you fear that life without the Internet would be boring, empty, and joyless?	14.0	10.4	22.3	10.9	14.7	27.7	100
13- How often do you snap, yell, or act annoyed if someone bothers you while you are online?	23.7	21.3	21.8	11.6	12.3	9.3	100
14-How often do you lose sleep due to being online?	24.4	20.2	20.4	11.6	14.7	8.7	100
15-How often do you feel preoccupied with the Internet when off-line, or fantasize about being online?	22.3	20.9	20.9	14.2	12.6	9.1	100
16- How often do you find yourself saying "just a few more minutes" when online?	8.4	15.4	24.4	16.5	15.4	19.9	100
17- How often do you try to cut down the amount of time you spend online and fail?	16.5	17.9	19.8	14.0	15.0	16.8	100
18-How often do you try to hide how long you've been online?	22.9	19.0	18.4	12.1	12.5	15.1	100
19- How often do you choose to spend more time online over going out with others?	30.9	18.1	21.4	12.2	7.2	10.2	100
20- How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back online?	27.5	18.8	23.2	10.6	9.3	10.6	100

Table 3 shows that the prevalence of Internet Addiction was significantly higher

among male students ($p = <0.001$), where (68.4%) of those with severe Internet

Addiction were males and only (18.3%) of the normal group were males.

The mean $\pm$ SD for the duration of Internet use was (2.20 ± 0.71) hours per day, and its range was between zero to more 5hours/day. In (Table 4) showed that Internet Addiction was high significantly among students with Excessive Internet use per day.

Internet addiction was significantly more prevalent among students who sleep less than 7 hours/day. In addition, IA was significantly more obvious among students who feel tired in the morning because of using the internet at night, who drink tea or coffee to stay longer periods online, and among those who indicate studying problems, as shown in Table 5.

Students with higher levels of Internet Addiction showed a statistically significant higher prevalence of back pain, headache, pain or redness of the eyes, and pain in the hands because of the use of the Internet, as shown in Table 6.

Discussion

More than two-thirds of students (68.7%) showed variant levels of IA, and (10.2%) of them had severe IA. This high prevalence of IA is similar than that reported in two

studies at Diyala University in Iraq. The first study showed that the prevalence of IA was 71% (19). In contrast, the other study showed the prevalence of IA as 89%, while the severe IA was among 2 % (20). Other regional and international studies showed that the prevalence of IA was less than what was reported in this study but with a higher percentage of students with severe IA. In Menoufia University in Egypt, a study revealed that the prevalence of IA was (52.3%) among college students, where severe IA was (13.2%) (21). Another study in Gaza-Palestine showed the prevalence of IA was (52.6%), whereas severe IA was (30.1%) (22). The prevalence of IA among college students is high in Iraq; this is a serious problem and expected to increase with the expansion in use and access to the Internet and SNS.

Males showed significantly higher rates of IA and higher mean of IAT than females (P -value < 0.001). The males' higher affection was indicated in several other studies in Iraq, Palestine, Egypt, and Iran (20-24), while another study in Iraq showed no significant differences between males and females (17). These results could explain that males got less parental supervision and more freedom in their attitudes than females in Middle east conservative societies.

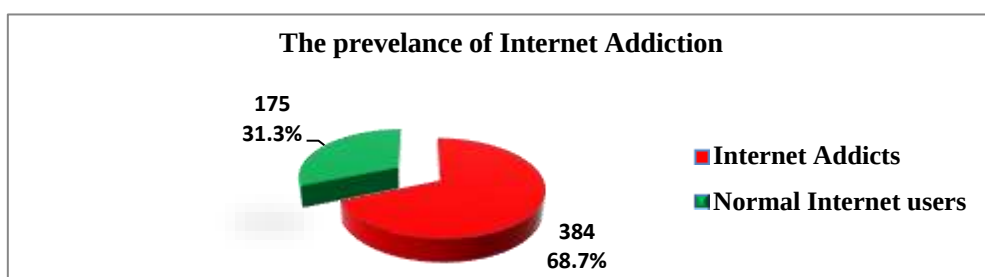


Figure 1. The prevalence of Internet Addiction among college students.

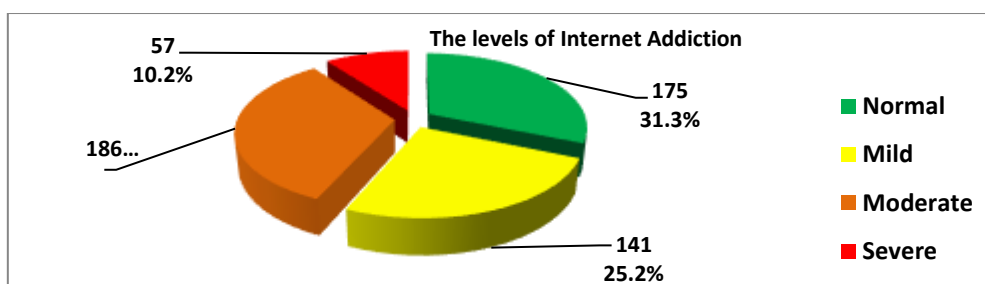


Figure 2. The levels of internet addiction among university students.

Table 3. Relationship between Internet Addiction and demographic variables, Data are presented as Number and Percentage [N. (%)] and [mean $\pm$ SD].

Variables	Internet Addiction prevalence				Total mean	Total SD	P-value
	Normal Internet use N. (%)	Mild Internet Addiction N. (%)	Moderate Internet Addiction N. (%)	Severe Internet Addiction N. (%)			
College types							
Scientific	92(52.6%)	71(50.4%)	95(51.1%)	27(47.4%)	45.44	0.99	0.573*
Humanities	83(47.4%)	70(49.6%)	91(48.9%)	30(52.6%)	46.72	1.01	
Colleges							
The pharmacy	48(27.4%)	36(25.5%)	39(20.0%)	4(7.0%)	40.80	0.08	0.017**
Engineering	44(25.1%)	35(24.8%)	56(30.1%)	23(40.4%)	49.17	0.08	
The law	35(20.0%)	29(20.6%)	43(23.1%)	19(33.3%)	48.73	0.09	
Education for Human Sciences	48(27.4%)	41(29.1%)	48(25.8%)	11(19.3%)	45.01	0.08	
Stage							
First	99(56.6%)	74(52.5%)	96(51.6%)	32(56.1%)	45.64	1.02	0.600*
Third	76(43.4%)	67(47.5%)	90(48.4%)	25(43.9%)	46.57	0.99	
Gender							
Male	32(18.3%)	60(42.6%)	102(54.8%)	39(68.4%)	55.93	0.92	<0.001*
Female	143(81.7%)	81(57.4%)	84(45.2%)	18(31.6%)	39.02	0.96	
Marital status							
Single	167(95.4%)	124(87.9%)	172(92.5%)	54(94.7%)	46.15	1.01	0.080**
Married/engaged	8(4.6%)	17(12.1%)	14(7.5%)	1(1.8%)	43.05	0.79	
Divorced/Widow	0	0	0	2(3.5%)	84.5	0.00	
Mothers' education							
Illiterate							0.694**
Primary	26(14.9%)	23(16.3%)	27(14.6%)	14(25.5%)	47.77	1.06	
Secondary	32(18.4%)	29(20.6%)	30(16.2%)	13(23.6%)	45.71	1.03	
High education	88(50.6%)	69(48.9%)	94(50.8%)	18(32.7%)	44.87	0.96	
	28(16.1%)	20(14.2%)	34(18.4%)	10(18.2%)	47.48	1.02	
Fathers' education							
Illiterate							0.146**
Primary	14(8.1%)	14(10.1%)	20(11.0%)	11(20.4%)	51.75	1.06	
Secondary	17(9.8%)	15(10.8%)	14(7.7%)	4(7.4%)	40.76	0.97	
High education	75(43.4%)	69(49.6%)	85(46.7%)	22(40.7%)	46.12	0.97	
	67(38.7%)	41(29.5%)	63(34.6%)	17(31.5%)	44.90	1.02	
Marital status of parents							
Married	159(90.9%)	127(90.1%)	166(89.2%)	47(82.5%)	45.93	0.99	0.493**
Divorced	0.0	1(0.7%)	4(2.2%)	1(1.8%)	56.17	0.63	
One or both of them is/are dead	16(9.1%)	13(9.2%)	16(8.6%)	9(15.8%)	46.28	1.08	
Governorate							
Kerbala	141(80.6%)	119(84.4%)	150(80.6%)	48(87.3%)	46.17	1.00	0.623**
nearby From Kerbala	25(14.3%)	12(8.5%)	22(11.8%)	4(7.3%)	43.65	1.01	
far away from Kerbala	9(5.1%)	10(7.1%)	14(7.5%)	3(5.5%)	47.08	0.95	
Residence							
Rural	39(22.4%)	20(14.2%)	35(18.8%)	14(25.0%)	46.16	1.08	0.984*
Urban	135(77.6%)	121(85.8%)	151(81.2%)	42(75.0%)	46.01	0.98	
Economic situation							
Good	55(31.4%)	30(21.3%)	51(27.4%)	14(24.6%)	45.15	1.03	0.564**
Medium	115(65.7%)	102(72.3%)	130(69.9%)	37(64.9%)	46.16	0.99	
Poor	5(2.9%)	9(6.4%)	5(2.7%)	6(10.5%)	50.16	1.09	
Age of the participants /Years Mean $\pm$ SD	20.48 $\pm$ 2.056	20.77 $\pm$ 1.892	20.83 $\pm$ 1.906	21.26 $\pm$ 2.334	20.75	2.01	0.005***

* Mann-Whitney Test, **Kruskal-Wallis Test, *** Correlation is significant at the 0.01 level (2-tailed).

Table 4. Relationship between Internet Addiction and Excessive Internet use per day.

Duration of daily internet usage	Internet Addiction prevalence				P-value
	Normal internet use N. (%)	Mild IA N. (%)	Moderate IA N. (%)	Severe IA N. (%)	
daily Internet usage / hour					
I do not use	6(3.4%)	0	0	0	<0.001*
About one hour a day	57(32.6%)	12(8.6%)	9(4.8%)	0	
About two to five hours a day	106(60.6%)	96(68.6%)	60(32.3%)	8(14.0%)	
More than five hours a day	6(3.4%)	32(22.9%)	117(62.9%)	49(86.0%)	
Internet used more than 20 hours during the day					
Never	170(97.1%)	122(86.5%)	126(67.7%)	29(50.9%)	<0.001*
Sometimes	5(2.9%)	17(12.1%)	54(29.0%)	23(40.4%)	
Always	0	2(1.4%)	6(3.2%)	5(8.8%)	
Social networking sites (SNS)					
Yes	150(86.2%)	132(93.6%)	182(97.8%)	56(98.2%)	<0.001*
No	24(13.8%)	9(6.4%)	4(2.2%)	1(1.8%)	
YouTube					
Yes	116(66.7%)	113(80.1%)	145(78.4%)	44(77.2%)	0.002*
No	58(33.3%)	28(19.9%)	40(21.6%)	13(22.8%)	
Scientific and academic sites					
Yes	81(46.6%)	51(36.2%)	55(29.7%)	8(14.0%)	<0.001*
No	93(53.4%)	90(63.8%)	130(70.3%)	49(86.0%)	

The social networking sites (SNS) were the most accessed websites with 520 (93. %), followed by YouTube with 418(74.8%). In contrast, 195(34.9%) had access to scientific and academic websites.

Internet Addiction was significantly associated (P value < 0.001) with excessive internet usage, which is similar to the study in Egypt ⁽²¹⁾. Although time is not a direct function in diagnosing IA, early studies suggested that those classified as Internet Addiction users were generally excessive about their internet usage, spending anywhere from 40 to 80 hours per week, with sessions that could last up to 20 hours ⁽¹⁸⁾. Facebook and other SNS were the most used websites, followed by YouTube, and this is expected with the worldwide popularity of these sites. However, severe IA was significantly associated with higher use of these sites. These results are similar to other studies ^(25,26), and these points showed a large view on the effect of duration and type websites used on IA. While the contrary, those who used the scientific and academic sites frequently showed significantly lower levels of IA.

Internet addiction appeared to be significantly associated (P value < 0.001) with decreased sleeping hours for less than 3 hours. It is worth mentioning that 7 hours of sleep a day is the minimum number of hours of sleep needed for young people between the ages of 18 to 25 years, according to the National Sleep Foundation ⁽²⁷⁾. These findings are in agreement with other studies ^(28,29). Internet Addicts had significantly higher rates of staying awake for late-night periods and lack adequate sleep, and inability to wake up in the morning to go to the university (P value < 0.01). This sense of fatigue and exhaustion in the morning probably affects their concentration during lectures. As a result, it showed significantly (P value < 0.001) higher rates of caffeine drink among those with higher IA.

Moreover, lower performance in exams, as they indicate. Perhaps, they drink more caffeinated drinks to stay awake, and this disturbed sleep and long hours spent on Internet negatively affect their study. This result is similar to what was highlighted by Young and other researchers ^(11,12,23,30,31)

Table 5. The relationship between Internet addiction and sleep habits.

Effect of Internet use on sleep habits	Internet addiction prevalence				P-value
	Normal Internet use N. (%)	Mild Internet Addiction N. (%)	Moderate Internet Addiction N. (%)	Severe Internet Addiction N. (%)	
Sleep rate /day Less than 7 hours/day More than 7 hours/day	17(9.8%) 156(90.2%)	29(21.0%) 109(79.0%)	142(76.3%) 44(23.7%)	53(93.0%) 4(7.0%)	<0.001*
Do you stay awake at night to use the Internet? Never Sometimes Always	124(70.9%) 46(26.3%) 5(2.9%)	52(36.9%) 73(51.8%) 16(11.3%)	8(4.3%) 71(38.2%) 107(57.5%)	0 6(10.5%) 51(89.5%)	<0.001**
Do you sleep well enough? Never Sometimes Always	11(6.3%) 67(38.3%) 97(55.4%)	18(12.8%) 82(58.2%) 41(29.1%)	80(43.0%) 89(47.8%) 17(9.1%)	40(70.2%) 14(24.6%) 3(5.3%)	0.002**
Do you feel tired in the morning because of using the Internet at night? Never Sometimes Always	129(74.1%) 42(24.1%) 3(1.7%)	73(51.8%) 61(43.3%) 7(5.0%)	22(11.8%) 78(41.9%) 86(46.2%)	0 5(8.8%) 52(91.2%)	<0.001**
Do you take tea or coffee to stay longer periods online? never Sometimes Always	168(96.6%) 4(2.3%) 2(1.1%)	119(85.0%) 20(14.3%) 1(0.7%)	116(62.4%) 49(26.3%) 21(11.3%)	9(15.8%) 20(35.1%) 28(49.1%)	<0.001**
Do you suffer from low grades in exams and failure to study because of your Internet use? Never Sometimes Always	109(62.6%) 61(35.1%) 4(2.3%)	61(43.3%) 72(51.1%) 8(5.7%)	39(21.1%) 107(57.8%) 39(21.1%)	6(10.5%) 24(42.1%) 27(47.4%)	<0.001**

Table 6. Relationship between Internet Addiction and some health effects.

Health, psychological and financial effects	Internet addiction prevalence				P-value
	Normal Internet use N. (%)	Mild Internet Addiction N. (%)	Moderate Internet Addiction N. (%)	Severe Internet Addiction N. (%)	
Do you suffer from back pain because of sitting online? Never Sometimes Always	117(67.2%) 56(32.2%) 1(0.6%)	83(58.9%) 53(37.6%) 5(3.5%)	65(34.9%) 105(56.5%) 16(8.6%)	17(29.8%) 26(45.6%) 14(24.6%)	<0.001*
Do you suffer from headache because of the use of the Internet? Never Sometimes Always	111(63.8%) 60(34.5%) 3(1.7%)	61(43.6%) 71(50.7%) 8(5.7%)	51(27.4%) 106(57.0%) 29(15.6%)	5(8.8%) 34(59.6%) 18(31.6%)	<0.001*
Do you suffer from pain or redness of the eyes due to sitting online? Never Sometimes Always	110(63.2%) 56(32.2%) 8(4.6%)	61(43.3%) 71(50.4%) 9(6.4%)	67(36.0%) 97(52.2%) 22(11.8%)	8(14.0%) 28(49.1%) 21(36.8%)	<0.001*
Do you suffer from pain in your hands because of the use of the Internet? Never Sometimes Always	111(64.2%) 59(34.1%) 3(1.7%)	63(44.7%) 73(51.8%) 5(3.5%)	63(33.9%) 97(52.2%) 26(14.0%)	13(22.8%) 29(50.9%) 15(26.3%)	<0.001*

*Kruskal-Wallis Test

It is well-known that the prolonged use of computers or mobile phones has great physical health and mental health ^(6,12) and the financial side of the addicted person. Following these points, back pain, the pain of hands, pain of eyes, and headache rate were significantly more prevalent with those with higher levels of IA (P value < 0.001), which is probably related to overuse for a long duration. These findings are in coherence with other studies ^(11,12).

Conclusion

A high level of IA is identified among university students, where the IA was more severe among males. IA severity is significantly associated with excessive internet usage, use of SNS, and using YouTube. In comparison, it was inversely associated with access to scientific and academic websites.

Internet Addiction levels are significantly higher among students who sleep less than seven hours per day, those who stay awake at night to use the Internet, lower quality of sleep, who feel tired in the morning because of using the Internet at night, and those who drink more tea or coffee to stay longer periods online. Furthermore, students with higher levels of IA indicate a negative effect on academic performance in study and exams. They also suffer backache, headache, pain or redness of the eyes, and pain in the hands because of sitting online for long periods.

IA is a serious problem expected to increase and needs to be considered by officials, parents, and academia. It needs to be combated at all levels adapting effective and feasible plans and strategies, including screening, and managing it. It also needs to cover the domestic, school, and university environment with proper media use and prepare support groups for those who suffer from IA.

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