Internet Addiction among High School Students in Baghdad City

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ABSTRACT:

BACKGROUND:

The escalating need for the Internet is becoming a concern globally, various agents made the internet use addictive to all ages. Recently internet addiction is being considered as a psychiatric disorder

OBJECTIVE:

To measure high school students' prevalence of internet addiction and its association with internet activities, socio-demographic factors and academic performance.

METHODS:

A convenient sample of 526 students from 6 high schools in Baghdad. Using internet addiction test and a questionnaire to enquire about the socio-demographic factors from November 2020 till February 2021.

RESULT:

Internet addiction prevalence was 45.82%, internet addiction severity was (13.3 % mild, 23.4 % moderate and 9.1 % severe). Internet addiction prevalence was higher in Al-Rusafa district and students with chronic illness, internet addiction prevalence was lower in female students with higher academic performance using internet for browsing and studying.

CONCLUSION:

High internet addiction prevalence was associated with male high-school students with low academic performance.

KEYWORDS: addiction, Baghdad, schools, internet .

INTRODUCTION:

Internet addiction is defined as compulsive behavior which interrupts with normal life activities. The increasing need for the Internet, whether positively or negatively is becoming a major concern worldwide. Many factors make them very attractive to both young and old. Internet addiction is classified as compulsive-control disorder, it is also considered as non-substance misuse and behavioral addictions [1-5]. Healthy internet use is the use of the Internet to reach a beneficial goal within an acceptable period of time without social or behavioral discomfort [6]. Currently, internet addiction is global mental health problem. [7, 8], this behavior may have negative impacts on daily life activities, affect person's relations with friends and family, and make him emotionally unstable. Internet addiction is more in males, high school students, and urban area residency [9]. **Justification of the study (rational)**: Students having high vulnerability to internet addiction, because of lack of supervision, less control on their time and more freedom to access Internet. Internet addiction is highly resistant to treatment with high relapsing rates so that it needs more efforts and attentions [10]. These days internet addiction is regarded as an important health problem and requires more attention and associated with many physical and psychological adverse effects such as sleeplessness, poor academic achievement and failure, depression, social isolation and even psychiatric disorders, also, internet addiction may have many physical adverse.

AIMS OF STUDY:

To measure the prevalence and severity of internet addiction among high school students and its relation with academic performance and socio-demographic factors.

MATERIALS AND METHODS:

A cross-sectional study with an analytic component was conducted. A convenient sample of governmental high school students from Baghdad city were included, the setting of this study was the educational districts of Baghdad governorate (Al-Karkh and Al-Rusafa), students were selected non-randomly (conveniently) from eight governmental high schools, to participate in the study.

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The study was conducted during the period extended between 1st of December 2020 - until 31th of January 2021. A self-administered questionnaire was used in this study. All 36 items were in Arabic, divided into two parts; first part which contains 16 questions that were asking about certain information derived from multiple studies, these questions asking about; Age, Sex, districts, academic performance in the previous year, presence of chronic diseases, type of media device used, the purpose of using the Internet, Social media account and Parents; education, employment, their marital state and their life state. Second part was the **Internet Addiction Test** IAT which is a scoring test used for evaluating the severity of internet addiction (NONE score 0-30, MILD score 31-49, MODERATE score 50-79 and SEVER score 80-100), and it contains a 20-item questionnaire, each one answered by (0-5) grade [0= not applicable, 1= Rarely, 2=occasionally, 3=Frequently, 4= Often, 5=Always] [11]. The formal approvals of the school managers were obtained. **Ethical consideration** the researcher contacted the selected schools and their manager, the nature of the study was explained and the full permission acquired then Verbal consent obtained from all of the students to participate in the study before the start of data collection. The collected data kept and will be kept confidential and not to be released except for a scientific purpose. IBM SPSS 26 software was used for the statistical analysis of our data. IAT score for each student was calculated and internet use status was decided according to the IAT cutoffs, to calculate the IA prevalence and severity of the study sample. Pearson chi-square test and the exact test were used to find any significant association among the study variables with P-value < 0.05 level considered significant.

RESULTS:

A total of 526 high school students from Baghdad city participated in this study; 278 (52.9%) from Al-Karkh district and 248 (47.1%) were from Al-Rusafa district. Regarding the gender of the students, 213 (40.49%) were boys and 313(59.51 %) were girls. Concerning the Age, it ranged from 14 to 20 years old with Mean age (± SD) = 17.00 ±1.00 years. Eighty (15.2%) students suffered from chronic illness. Regarding academic performance, 398(75.7%) students passed the final exam from the 1st attempt, while 123 (23.4%) from the second attempt and only 5(1.0%) required a 3rd attempt to pass. IA prevalence: The prevalence of internet addiction was 45.82%, as shown in Figure 1. The prevalence of internet addiction among males was 57.28% and among females was 38.02%. The severity of IA: 13.3 % of the students were mildly internet-addicted, 23.4% were moderately addicted and 9.1 % were severely addicted according to IAT, as shown in figure 2.

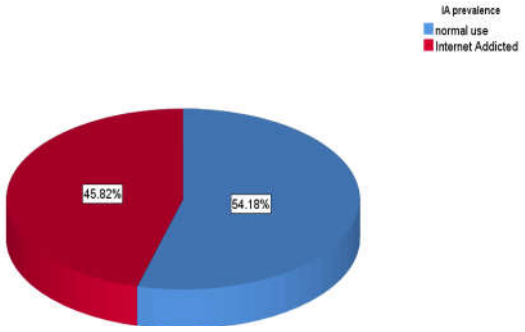

Figure 1 Internet addiction prevalence among study students according to IAT

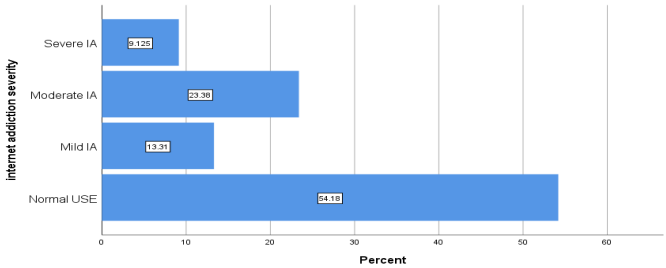

Figure 2: Distribution of study students according internet addiction severity according to IAT

Internet addiction was significantly associated with females than males (38.0% vs. 57.3%) respectively with P = 0.0001. Internet addiction was significantly associated with Al-Rusafa district than Al-Karkh district (52.4% vs 39.9%) respectively with P = 0.005. There was a significant association between Internet addiction and with 6th grade high school students (62.3% with P = 0.0001). Internet addiction was significantly associated with students who passed the last year from the 1st attempt than the 2nd and 3rd attempts (32.9% vs 85.4% and 100% with P = 0.0001) respectively. Internet addiction was significantly associated with students with chronic illness (78.8% with P = 0.0001) *(table 1)*.Internet addiction was significantly associated with students using smartphones and social media (65.3%, p=0.0001 and 54.3%, p= 0.001) respectively. The Internet addiction was significantly associated with student using the Internet for browsing and studying (42.3%, p=0.019 and 39.4%, p=0.015*(table 2)*.

Table 1: Distribution of the students (N=526) according to internet addiction and students' socio-demographic characteristics.

		normal use		IA		P-value
		Freq.	%	Freq.	%	
sex	male	91	42.7	122	57.3	0.0001
	female	194	62.0	119	38.0	
Baghdad districts	AL-Karkh	167	60.1	111	39.9	0.005
	AL-Rusafa	118	47.6	130	52.4	
high school grade	4th	59	49.2	61	50.8	0.0001
	5th	169	66.3	86	33.7	
	6th	57	37.7	94	62.3	
Academic performance	1st. attempt	267	67.1	131	32.9	0.0001
	2nd. attempt	18	14.6	105	85.4	
	3rd. attempt	0	0.0	5	100.0	
chronic illness	yes	17	21.3	63	78.8	0.0001
	no	268	60.1	178	39.9	
Significant p < 0.05 level.						

Table 2: Distribution of the students according to internet addiction and student's internet activities.

		normal use		IA		P-value
		Freq.	%	Freq.	%	
device type	smart phone	33	34.7	62	65.3	0.0001
	others	252	58.5	179	41.5	
personal Social media account	yes	262	53.7	226	46.3	0.415
	no	23	60.5	15	39.5	
browsing	yes	206	57.7	151	42.3	0.019
	no	79	46.7	90	53.3	
Music & video	yes	151	55.7	120	44.3	0.484
	no	134	52.5	121	47.5	
gaming	yes	129	58.6	91	41.4	0.092
	no	156	51.0	150	49.0	
studying	yes	134	60.6	87	39.4	0.015
	no	151	49.5	154	50.5	
chatting	yes	133	55.0	109	45.0	0.792
	no	152	53.5	132	46.5	
Social media	yes	102	45.7	121	54.3	0.001
	no	183	60.4	120	39.6	
Significant $p < 0.05$ level.						

DISCUSSION:

The prevalence of internet addiction among the students in this study was 45.82%. A study conducted in Al-Kindy medical college on 2018–2019, 68% were addicted [12]. This was inconsistent with a study conducted in Jordan adolescent school students, where the prevalence of internet addiction was 6.3% [13]. In Saudi Arabia, studies among adolescents and young adults showed that prevalence estimates for internet addiction in 2014–2015 were between 4% and 6% [14], while the estimates in 2019 were in the range of 30–60% [15], this disagrees with and is lower than this study's results, which can be explained by the differences in age group, sample size, culture, research instruments and techniques, taking in consideration that this study was conducted in the period of covid19 pandemic, where in Iraq, most of the students were using the internet for e-learning, browsing, studying and on the other hand staying home most of the time may also explain the increase in IA among high school students of this study. Internet addiction was significantly lower in females than males (38.0% vs 57.3%) respectively. This is consistent with most previous studies that revealed IA prevalence more in males than females [16-20]. Inconsistent to this study, a study conducted in Korea among 573 high-school students revealed that there is no significant difference of internet use between males and females [21], this can be explained by the cultural difference, where in Iraq, males have a smartphone and access internet more freely.

Sixth-grade high school students showed higher IA (62.3%), this association can be explained by that sixth-grade students have more access to the Internet and smartphones for studying and e-learning. Internet addiction was significantly lower in students who passed the last year from the first attempt (32.9%). A study conducted among 2735 youth in Singapore during 2008, eight schools were randomly selected, and the results showed more internet addiction was associated with poorer academic performance [22]. This can be explained as those students with higher academic performance need to spend most of their times on studying, homework and other academic tasks; so, they had less time than students with a poorer academic performance; for entertainments like internet browsing, gaming, social media and other online activities. Internet addiction was significantly higher in students using smartphones and social media (65.3%, and 54.3%) respectively. On the other hand, internet addiction was significantly lower in student using the internet for browsing and studying (42.3% and 39.4%). A study in Bangladesh showed consistent results as 78.10% of participants use the internet for social networking and 59.63% use the internet for entertainment like playing games, watching movies or songs on YouTube, while 68.07% of participants use the internet for education purpose [23]. In Turkey, a study showed significant relationship between high school students' internet addictions, social media usage disorders, and smartphone addictions [24].

CONCLUSION:

The prevalence of Internet addiction was significantly higher in Al-Rusafa district, students with chronic illness, sixth grade high school students, students using smartphones and social media. The prevalence of Internet addiction was significantly lower in females, students with higher academic performance, students using the Internet for browsing and studying and students with both parents alive.

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