Assessment of Internet Addiction among Psychology Students in Kurdistan Region/ Iraq

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Abstract:

The use of internet has become widely common and a necessity for achieving daily tasks especially among university students and sometimes it reaches the level of addiction. This study aims to assess of Internet addiction among psychology students and its impact on their academic performance. A descriptive, cross-sectional study among psychology students was used at the Psychology Department in University of Garmian with stratified sampling method for 95 students using the Kurdish version of the Kimberly Young Internet Addiction Test (IAT). The result of the study showed that there were no differences between the males and females in Internet addiction, the results showed that both males and females got high scores from the average level of Internet addiction, and their scores were close in levels (normal, moderate, and severe) for Internet addiction, and the result indicated that most students are addicted to the Internet crossed their academic years with two exam trials instead of one, this result revealed the impact of the Internet on their academic performance.

Keywords: Assessment, academic performance, education, university, Iraq

تقييم إدمان الإنترنت بين طلاب علم النفس في إقليم كوردستان العراق

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المستخلص:

أصبح استخدام الإنترنت شائعًا على نطاق واسع وضرورة لتحقيق المهام اليومية، خاصة بين طلاب الجامعات، وأحياناً يصل إلى مستوى الإدمان. تهدف هذه الدراسة إلى التعرف على تقييم انتشار إدمان الإنترنت بين طلبة علم النفس وأثره على أدائهم الأكاديمي في قسم علم النفس بجامعة كرميان. تم استخدام نهج وصفي مقطعي بين طلاب علم النفس في جامعة كرميان مع طريقة الطبقات لأخذ العينات لـــ 95 طالبًا باستخدام النسخة الكردية من اختبار إدمان الإنترنت لعالمة النفس كيمبرلي يونغ. أظهرت نتيجة الدراسة عدم وجود فروق بين الذكور والإناث في إدمان الإنترنت، وأظهرت النتائج أن كلا من الذكور والإناث حصلوا على درجات عالية من متوسط مستوى إدمان الإنترنت، وكانت درجاتهم متقاربة في المستويات (طبيعي، متوسط، وشديد) لإدمان الإنترنت، وتشير النتيجة إلى أن معظم الطلاب المدمنون على الإنترنت قداجتازوا مراحلهم الأكاديمية بدورين امتحان بدلاً من دور واحد، وكشفت هذه النتيجة عن التأثير السلبي للإنترنت على أدائهم الأكاديمي.

الكلمات الدالة: تقييم، الأداء الأكاديمي، التعليم، الجامعة، العراق

1. Introduction:

The history of internet has developed in a period called "Cold War", This prosperity is due to the United States of America in the early sixties of the last century, when there was a struggle between the United States and the Soviet Union to expand their powers in the world. The United States of America began its research in the field of technological and informational development through the establishment of the Advanced Research Project Agency (ARPA) concerned with this field, and its mission was to produce innovative ideas in the field of technology and its development, especially after he worked to form and maintain a strategic Internet network for the benefit of the US Department of Defense, in order to preserve the information and mission of the satellite agencies of the United States, thus through his advanced research and efforts Innovative The Internet has become widespread and used all over the world and has become more than it is now. [1]

After that, the use of the Internet became common among the world's population to meet their daily tasks. At the dawn of 1995, about 16 million people, or about 4% of all the world's population, were Internet users, but by 25 years, the number of users had become 4.6 billion, equivalent to 59% of all the world's population. [2]. This information revolution brought about a great development in many societies, due to its usefulness in the field of education, entertainment and information transfer, so a large number of the world's population is using the Internet in order to facilitate their affairs in many aspects of life. [3]. Especially at the present time, after the Internet has become a major means of communication, and this has led to an increase in its use, especially among adolescents and young adults. [4].

Thus, the use of the Internet, in turn, affected our daily lives in the current era, and the increase in its use among the world's population opened doors for the emergence of a new phenomenon, which is Internet Addiction (IA). [5]. Also in Iraq, the use of the Internet has become common among all classes of society. In the year 2000, Internet users in Iraq did not exceed only 1% of the population of society. After a few years had passed, especially after the outbreak of the invasion of Iraq in 2003 and the occurrence of many political, social, and economic changes, the number of Users significantly Until 2016, the number of users became about 37.3% of the community's population. [6]. Many studies that were conducted in various governorates in Iraq indicated the increasing use of the Internet widely among Iraqi youth, especially among school and university students, and this led them to addiction to it, and among these studies, the study of [7]; She emphasized that Internet addiction at the present time is a widespread behavior among male and female students of the College of Medicine in Baghdad in a large way. The same result is what the [8] has reached and this is what the [9] also found; where the results of their study indicated that Internet addiction is a common behavior among students of the Faculty of Medicine in Baghdad Governorate, and this in turn led them to other psychological disorders such as anxiety and depression. Besides that, a sleep disorder, as indicated by another study [10]. Internet addiction is not only the prominent phenomenon among students, but its consequences are among the major problems that addicts suffer from, such as anxiety, depression, sleep disturbances, and the occurrence of other health problems.

The phenomenon repeats its history in the Kurdistan region of Iraq, there is almost a similarity between the results of studies conducted in various countries of the world and Iraq and studies conducted in the Kurdistan region of Iraq regarding the spread of Internet addiction among the population of society, especially students, among these studies is the [11], which it was conducted on male and female students at Koya University in Iraqi Kurdistan, and its results showed the common use of the Internet among male and female students, as it confirmed that male students use the Internet more than females. However, in contrast to the differences between males and females in Internet addiction, a group of researchers have indicated in their study, that there were no differences between the sexes in Internet addiction, due to a decrease in their ability to self-control, which led them to an increase in compulsive behavior they have of using the internet [12]. A study conducted on students of the University of Dohuk in Iraqi Kurdistan indicated that there is prevalence of internet addiction behavior among university students, it also showed a positive relationship between Internet addiction and exposure to mental disorders such as depression among male and female students. [2]. After the Internet became widely used, its use led to the emergence of rapid positive and negative results for various people in all parts of the world. Among those negative results is the emergence of addictive behavior, which is meant by "the deviant behavior that is characterized by the urgent and continuous desire to use something that aroused the person's pleasure in the past, And the person is fluent in the necessity of using it at other times to change their mood or stimulate the mental state. [13].

Internet addiction was diagnosed in early studies as excessive reliance on the use of the Internet, where a person spends about 40-80 hours a week using it for entertainment or spending private times of up to 20 hours. Through this use, sleep disturbance, fatigue, and poor Diet, exercise, work, and school performance due to lack of sleep. According to the APA Diagnostic Manual, researchers emphasize the similarity between Internet Addiction and impulse control disorder, and according to the Fourth Diagnostic Manual, its symptoms are similar to those of pathological gambling. [14]. Thus, the concept of Internet Addiction became widespread and was considered as a clinical disorder that needs treatment [15], and Internet addiction was defined by Young [16] as a disorder of impulse control or stimulus that does not contain sugar. Young also directed to diagnose this disorder by presenting eight main points, the presence of which in the user indicates his addiction to the use of the Internet and his condition is like the case of gambling addicts or drug addicts as we know them according to their diagnosis, and the points included:

1- The appearance of a person with a constant preoccupation with the Internet.
2- Feeling the need to use the Internet for a longer period of time in order to achieve satisfaction
3- The repeated failed attempt to block the use of the Internet.
4- The appearance of withdrawal symptoms such as (anxiety, depression, and irritability) when you stop using the Internet.
5- Using the Internet for a period of time longer than the limited and intended time.
6- Exposure to danger, such as losing a relationship, work, failure to study, or lack of achievement due to the use of the Internet.

7- Hide the number of hours you spend using the Internet from others.

8- Using the Internet to eliminate disturbed moods such as (feelings of helplessness, depression, anxiety...etc.) [17].

Studies indicate that Internet addiction, in turn, leads to many negative consequences related to psychological, mental and physical health. Their beliefs about the need to use the Internet in their daily lives. As stated in the results of the [18], 85% - 87% of young people use the Internet during the day and night, and this led to irritation in the eyes, physical pain, sleep disturbances, and mood disturbances, in addition to its impact on their daily eating habits. The results of a study concluded that most of Internet users suffer from a sleep disorder and are exposed to psychological problems such as anxiety, depression, and fear [19]. Another study was conducted on male and female students at the University of Kashmir in India and it concluded that most of the Internet addicts were males, followed by females, and the results of the study confirmed that most of them were exposed to psychological problems and experienced depression. [20].

The use of internet has become very popular in the past years among students and its impacts are not studied, because Internet addiction has been described as a behavioral disorder that has an impact on physical and mental health, it has been described as an obsessive- compulsive behavior as it has symptoms like compulsions to use the internet and the tolerance which makes the person want to use the internet more over time, in addition to the withdrawal symptoms such as anger, depression, and aggression when a person is deprived from using the internet. These behaviors are negatively affecting person's physical, social, and mental health leading to isolation, shyness, and stress [21]. The results of this study will help to build a bridge to the knowledge gap about this phenomenon in Iraqi Kurdistan, and also it will help the concerned authorities such as universities, the media, and government agencies to hold necessary scientific seminars on educating members of society, especially students at all educational levels, whether in schools or in universities about the harms of excessive use of the Internet, in addition to moving towards healthy methods to deal with this harmful phenomenon that is widespread in society. Therefore, the current study aims to assess the Internet Addiction among psychology students of Garmian University, assess the differences between males and females in Internet Addiction, and the impact of Internet Addiction on the students' academic performance (success from first or second trials). Knowing the spread of this phenomenon may increase the importance of the study because this opens other doors for us to conduct other studies on the impact of this phenomenon on the psychological, physical and mental health of students, because in this technological and information decade, despite its many benefits in all areas of life, we may see day after day the weakness of students in their academic performance, and disturbances in their mood, physical and psychological states. The study here raises the main question: Is Internet addiction widespread among Garmian University students? And the sub-questions that state: are there differences between the sexes in their addiction to the Internet? are there differences among Academic years in their addiction to the Internet? are there differences between the first and second trail in their addiction to the Internet?

The study hypotheses were: the prevalence of Internet addiction among university students, there are no differences between the males and females in internet addiction,

and Internet Addiction negatively affects the academic performance of males and females who use the Internet.

2. Methodology:

2.1. Study Design

This study uses the descriptive, cross-sectional design in order to assess of Internet Addiction among psychology students at the university of Garmian, in addition to the detection of differences between the males and females, Academic years, and success at first and second trials students in their Internet addiction.

2.2. Study population and sample

The study population consisted all the students of Psychology Department at college of Education at the University of Garmian. The study sample composed of 95 students in total collected using stratified sampling method and included students from second, third, and fourth year of studying because this study aimed to study the impact of Internet Addiction on academic performance (Success from the First and Second Trails) and excluded the first-year students because they have not yet participated in final exams to be assess for this study. The inclusion criteria were male and female students from second, third, and fourth year of studying at Psychology Department in Garmian University, and whom agreed to participate.

The exclusion criteria were first academic year students because this study was trying to find out the relationship between Internet Addiction and the success trail (first or second trial) in the final examinations among students, the first academic year students have not done their final examinations yet.

2.3. Study Questionnaire

Appropriate questionnaire was chosen according to an inventory and review of the reference sources that included related studies to the measures of the variable in the current study, so the researchers chose the Kimberly Young Internet Addiction Test (IAT) and translated it into the Kurdish language and back into English by different bilingual faculties in order to see the appropriateness of its application in the Kurdish environment in terms of wording and content. The final proved draft of the Kurdish version of the IAT was distributed among 25 students before the actual data collection for testing the reliability. The Cronbach- Alpha test was conducted using the SPSS-26 and it showed statistically significant "good" result (0.82). The questionnaire composed of two parts; the first part was some sociodemographic questions such as: age, gender, academic year, success trail, and if they are using internet or not. The second part was the Kimberly Young Internet Addiction Test (IAT). The IAT total score is the sum of the ratings given by the examinee for the 20 item responses.

In the scoring process each item is rated on a 5-point scale ranging from 0 to 5 (0 = Not Applicable, 1 = Rarely, 2 = Occasionally, 3 = Frequently, 4 = Often, and 5 = Always). The maximum score is 100 points. The higher the score is, the higher is the severity of your problem. Total scores that range from 0 to 30 points are considered to reflect a normal level of Internet usage; scores of 31 to 49 indicate the presence of a mild level of Internet addiction; 50 to 79 reflect the presence of a moderate level; and scores of 80 to 100 indicate a severe dependence upon the Internet.

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2.4. The setting

This study was conducted at University of Garmian, Kurdistan, Iraq, among three academic years of students. The University of Garmian is located in Garmian region, Sulaymaniyah Governorate, Kurdistan- Iraq. University of Garmian was part of the University of Sulaymaniyah until 2010, later it became independent in 2010. It has eight colleges which are Colleges of (Education, Basic Education, Science, Medicine, Agricultural Engineering, Language and Human Sciences, Sport Science and Physical Education, and Computer and Information Technology). The departments of (Law and Civil Engineering) are also part of this scientific and academic institution.

2.5. Ethical considerations

This study proposal was approved by the Scientific Committee at the department of Psychology, College of Education, later it was approved by Ethical Committee of Research Center at the University of Garmian (Code: 000510 in December 20th, 2021). Verbal informed consent was taken from each participant before the distribution of the questionnaire form, participants were given a brief clarification about the study title, objectives and that their data will be used of study purposes, also they were given the freedom to decide about participation in the study.

2.6. Data Analysis

The data analysis of the current study was done by the SPSS (version 26). Descriptive statistics, frequencies, percentages, Chi-Square Tests, Pearson correlations was used for the analysis of the IA severity (normal, mild, moderate, and severe) with the socio-demographic data (age, gender, academic year of studying, and success trail), ANOVA analysis for comparing the means of the IA scores for the academic years, Independent Sample T-test to compare IA scores for success trail, and Cronbach-Alpha test was used for the reliability of the study questionnaire.

3. Results:

Table 1: sociodemographic characteristics of the studied sample

Variables	Frequencies	Percentage
Age (mean 21.3, Std. Deviation 1.58)		
18-20 years	26	27.4
21 years	29	30.5
22 years	25	26.3
23 or more	15	15.7
Gender		
female	68	71.6
male	27	28.4
Academic years		
2nd year	37	38.9
3rd year	24	25.3
4th year	34	35.8
Success trail		
first trail	43	45.3
second trail	52	54.7
using internet		
yes	93	97.9
no	2	2.1
Total	95	100.0

Based on the socio-demographic characteristics; the sample composed of 95 students (68 females and 27 males) aged from (18-26, mean 21.3, Std. Deviation 1.58), participation from the academic years were as follows: 37, 24, and 34 from years 2, 3, and 4 respectively.
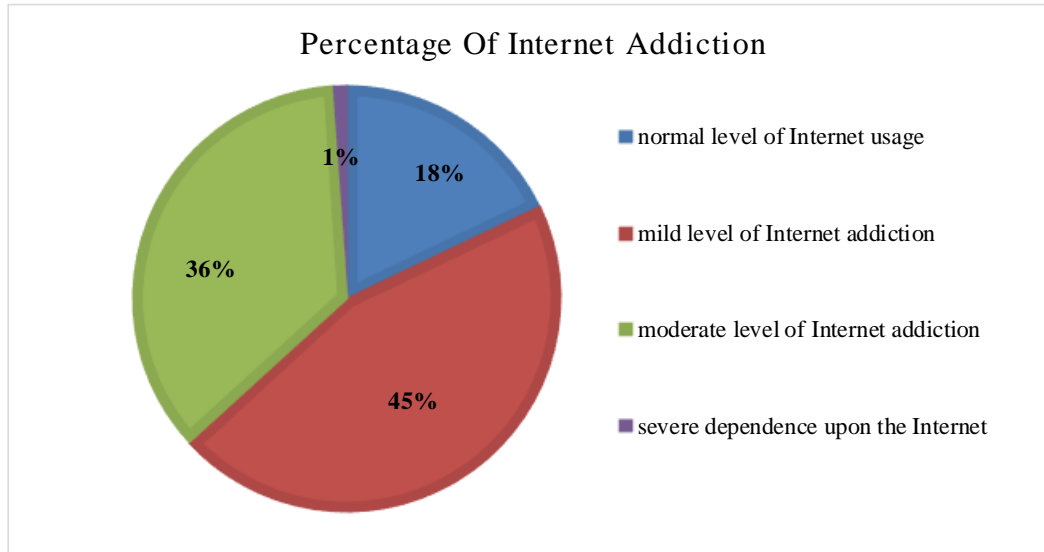

Figure 1: Distribution of the studied sample according to Internet Addiction Total scores.

Figure 1 shows total scores of Internet Addiction; 18% as normal (no addiction), 45% as mild addiction, 36% as moderate addiction, and only 1% as sever addiction.

Table 2: Association of sociodemographic characteristics of Internet addiction severity among the studied sample using chi-square test

Variables	Normal	Mild	Moderate	Sever	Total	P. value
Age						
18-20 years	6 (23.1)	13 (50.0)	7 (26.9)	0 (0.0)	26 (100.0)	0.249
21 years	3 (10.3)	16 (55.2)	10 (34.5)	0 (0.0)	29 (100.0)	
22 years	6 (24.0)	7 (28.0)	12 (48.0)	0 (0.0)	25 (100.0)	
23 or more	2 (13.3)	7 (46.7)	5 (33.3)	1 (6.7)	15 (100.0)	
Gender						
Female	13 (19.1)	31 (45.6)	23 (33.8)	1 (1.5)	68 (100.0)	0.835
Male	4 (14.8)	12 (44.4)	11 (40.7)	0 (0.0)	27 (100.0)	
Academic year						
2nd year	8 (21.6)	16 (43.2)	13 (35.1)	0 (0.0)	37 (100.0)	0.751
3rd year	4 (16.7)	13 (54.2)	7 (29.2)	0 (0.0)	24 (100.0)	
4th year	5 (14.7)	14 (41.2)	14 (41.2)	1 (2.9)	34 (100.0)	
Success trail						
First trail	6 (14.0)	24 (55.8)	13 (30.2)	0 (0.0)	43 (100.0)	0.249
Second trail	11 (21.2)	19 (36.5)	21 (40.4)	1 (1.9)	52 (100.0)	
using internet						
Yes	16 (17.2)	43 (46.2)	33 (35.5)	1 (1.1)	93 (100.0)	0.524
No	2 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (100.0)	

This table shows that the percentage of moderate and sever levels of Internet Addiction is common among all groups, with no significance p. value for the groups, which indicates no differences in the severity of Internet addiction among the groups.
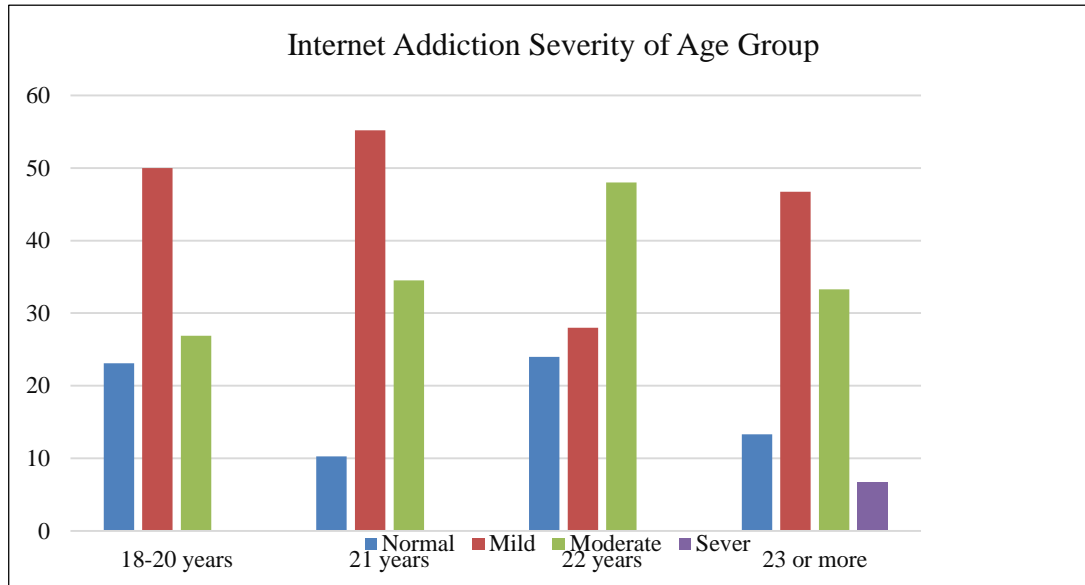

Figure 2: Distribution of Internet Addiction Severity of the Age Groups.

The figure 2 shows that the severity of IA is similar among different age groups, mild severity is the dominant for all age groups except age 22 years old, which the moderate severity is common.
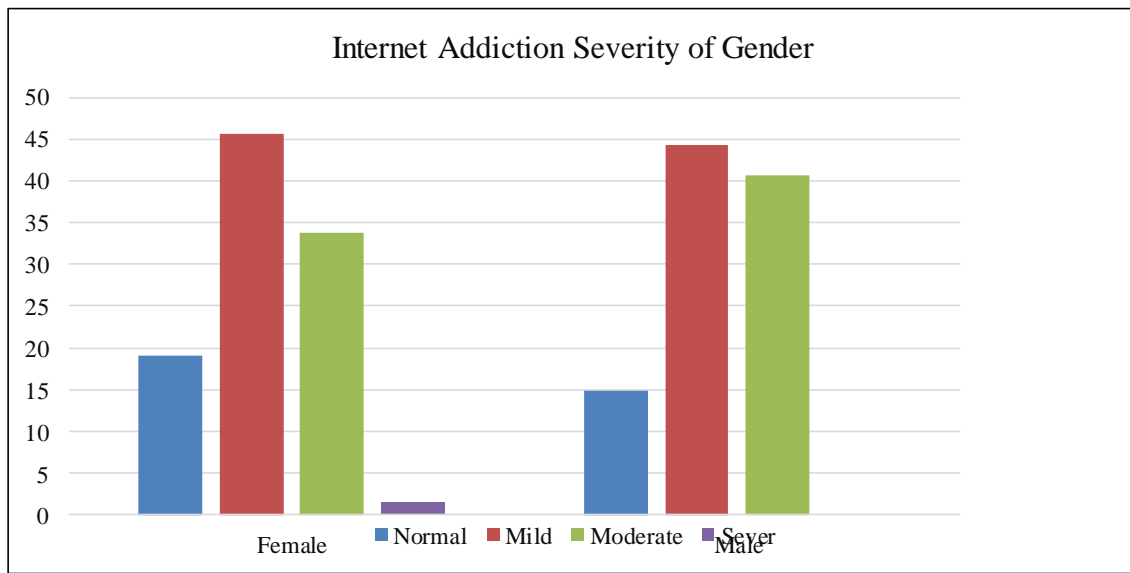
Figure 3: Distribution of Internet Addiction Severity of the Gender.

Based on the figure 3, it is obvious that there are similarities in the severity of IA between males and females.
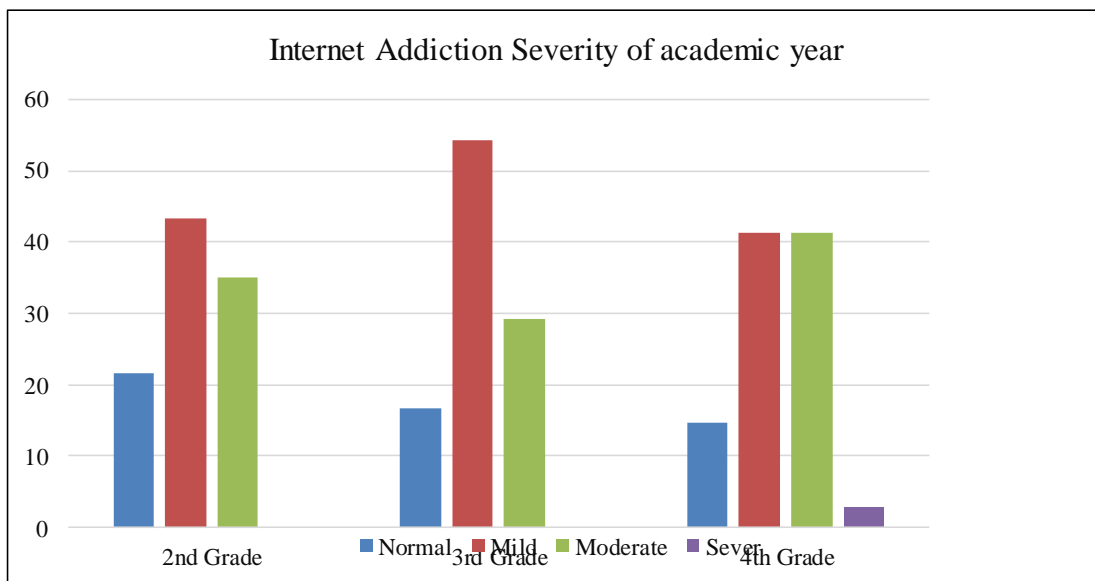

Figure 4: Distribution of Internet Addiction Severity of the academic years (grades).

This figure shows that the dominant severity of IA is the mild and later the moderate, while in grade four both severities tend to be the same.
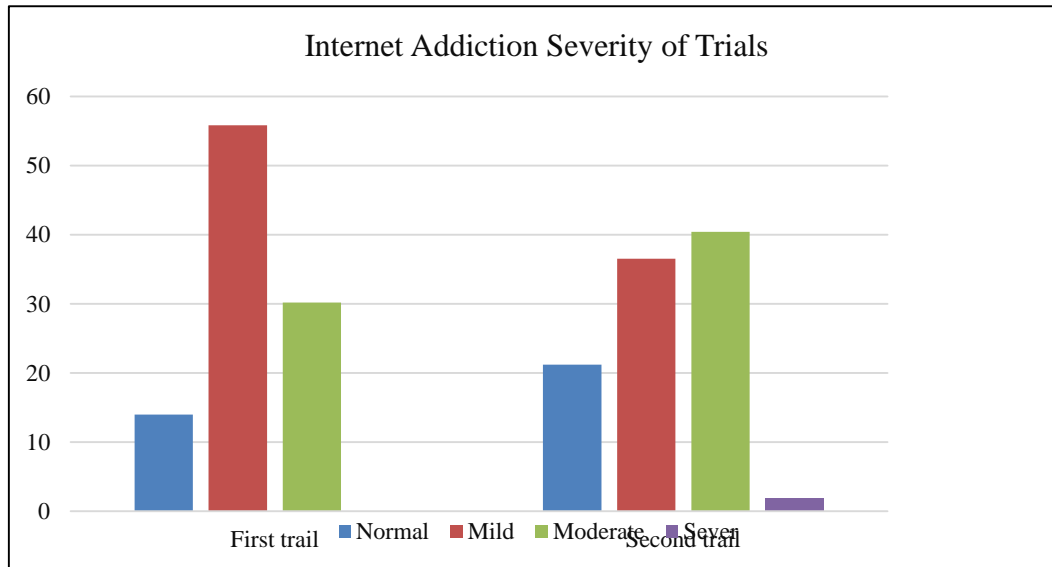

Figure 5: Distribution of Internet Addiction Severity of the trials.

In this figure, there are differences in IA severity between students who succeeded in the first trial compared to those who succeeded in the second trail. The moderate severity is higher in the second trail.

Table 3: Comparison of total score of Internet Addiction Total scores between different academic years using One-Way ANOVA Test

Academic year	Years	Sig.	df	F	Sig.
2nd year	3rd year	0.996			
	4th year	0.476			
3rd year	2nd year	0.996	2	.986	.377
	4th year	0.502			
4th year	2nd year	0.476			
	3rd year	0.502			

The ANOVA analysis has shown no significant differences between the studying academic years in the severity of IA. There are no differences in the IA among the academic years.

Table 4: Comparison of total score of Internet Addiction Total scores between success trials using Independent Sample T-Test

Trail	Frequency	Percent	Mean	Std. Deviation	Sig.
First trail	43	45.3	43.12	11.597	**0.043**
Second trail	52	54.7	45.10	15.147	

The Independent Sample T-Test has revealed a significant result (0.043) in the comparison of the severity of IA between the first and second trail, the mean score of the second trial (45.10) is also higher than the first trail (43.12).

4. Discussion:

The results of the study are clarified in terms of their consistency and differences with the results of previous studies. The aim of the study is to assess the prevalence of Internet addiction among male and female students, with gender differences in their addiction to the Internet, and to know the impact of Internet Addiction on their academic achievement and passing through their exam trials. The results of this study concluded that Internet addiction is common among the sample of the study was 82%, and this agreed with the results of some studies conducted in this regard in Iraq and the Kurdistan region of Iraq [7],[8],[9],[11][12],[20]. This result disagrees with a study were conducted in China in 2016, they found that only 15.2% of the college students had Internet Addiction [22], this difference is because of the time difference because of their study and the current study; the use of internet is increasing with the time and mainly after the COVID-19 pandemic.

As for the differences between the males and females in their addiction to the Internet, the results of this study concluded that there were no significant differences between the two study samples in their addiction to the Internet, even in their levels of addiction to the Internet, as the results concluded that the male and female study samples obtained similar degrees in the levels of addiction to the Internet. For the Internet Addiction scores both of them had higher scores at the average level, the male sample got (44.4%) the average level in Internet Addiction and the female sample got (45.6) at the average level, so the result indicated that both sexes are addicted to the average level.

However, in the other levels, their scores were low and similar, as the females scored (19.1%) in the normal level, (35.1%) in the moderate level, (1.5%) in the severe level, the males' scores were close to theirs, as well at the normal level, males got (14.8), and at the moderate level they got (40.7%), and at the severe level they got (0.0%). It agrees with the study of Shen et al., 2021 [23]; they also found no differences between males and females. On the other hand, it does not agree with Sayyah, & Khanfereh, 2019 [24]; as it does not agree with it in terms of gender differences, because the results of their study found differences between the males and females in their Addiction to the Internet. Adding to that, other studies in Taiwan and China have found male students more addicted on Internet compared to females [25],[26]. However, in terms of its

agreement with the results of our study, it was concluded that both the male and female samples obtained high scores at the average level in their Internet addiction by (47.4%).

These similarities between males and females in Internet Addiction scores could be related to the COVID-19 pandemic time; because at that time all the necessary needs and tasks, especially studying, were accomplished through the Internet, when life was completely stopped and the internet was only activate way of communication for both sexes, young and old used the internet extensively to meet their daily tasks, especially studying via the Internet, and this is what changed people's attitudes about using the internet, as they tended to use the internet for longer hours than usual, and this was indicated by a study [27], where the results of their study concluded that COVID-19 led to a change in the habits of young people about their use of the Internet, and the results of their study showed that young people in that period were using the Internet more than the time before the COVID-19 pandemic. Another reason for students' addiction to the internet may due to the easy access to the internet now adays, because the availability of the internet is everywhere, it is cheap, and each of the residents of the community can obtain the internet around their financial capabilities.

The result of this study revealed that there is a positive relationship between Internet Addiction and the status of academic performance or students crossing their academic years in two rounds, as the result indicated that most of the students who were addicted to the internet crossed their academic years with two rounds of exams (first and second trial), due to their Addiction to the Internet, this result agrees with some studies such as the [28] and the [29]; where the results of their studies showed that Internet Addiction has negative effects on students' academic performance, and among those effects were academic weakness, decreased social relations with their family, and loss of concentration. This was similar to what was found by a [31], which was conducted on medical students, and the results of their study confirmed that Internet Addiction had affected their academic performance. [30.31,32]

Perhaps these effects are due to the misuse of the Internet, because students who uses the internet are using it for reasons of self-development or for an academic purpose. This negatively affects the performance of their daily tasks, including academic performance, work and achievements in the areas of life.

5. Conclusion:

Internet addiction was widespread among psychology students of all academic levels, and the average level of Internet addiction was more common among male and female students, so there was no significant difference between the male and female samples, age groups, and academic years of psychology students in Internet addiction. The significant difference was found between the exam trials and this is a great indicator for the negative impact of the Internet addiction on academic performance among college students. This study suggests conducting further studies on the phenomenon of Internet Addiction among different groups of samples such as high school students, teachers, parents, and children, provided that these studies include a larger sample size, and examine the negative effects of Internet addiction on addicted persons, with the need to study the relationship between poor academic performance of students and addiction to

the Internet. Also among students of the Department of Psychology and to find out more about reasons for their addiction to the Internet, given that the students of this department are pioneers in the therapeutic and counseling field, they need to realize the phenomena, and they have to work on it in turn according to their educational experience in the field of therapeutic and educational psychology, the study suggests setting up an educational course for students of the Department of Psychology to educate them and teach them about the harmful phenomena of society, and to make them aware of social and academic issues so that they do not engage in them before the general community.

6. Acknowledgement:

CONFLICT OF INTERESTS
There are no conflicts of interest

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