

Determinants of Internet Usage among Damanhour University Students

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Abstract

Background: *The internet has become an indispensable tool for communication, academic research, information and entertainment. However, heavy users of the internet which has many determinants and internet addiction. Aim of this study is identify determinants of internet usage among Damanhour university students* **Research design:** *A descriptive cross-sectional research design was utilized to fulfill this study* **Settings:** *The current study was conducted in all faculties of Damanhour University (n= 11). These faculties namely, Agriculture, Art, Commerce, Computer and Information, Early Childhood Education, Education, Nursing, Pharmacy, Science, Specific education and Veterinary Medicine.* **Data collection tools:** *Two tools were used: Tool (I): University students' Profile structured self-administered questionnaire sheet. Tool II: Internet Addiction Test (IAT) self-administered questionnaire sheet.* **Results:** *The mean age of the students 21.09 ± 1.56 years, more than three quarters (77.3%) of the studied students have moderate internet addiction level followed by less than one fifth (19.0%) of them who have mild internet addiction, while only 3.7% of them have severe internet addiction. A statistically significant relation was existed between age, physical complains, daily spend hour on internet, presence of smart phone, social media, gaming websites, academic achievement and internet addiction level.* **Conclusion:** *that overall, the present study integrated various determinants concerning the usage of internet applications to determine the factors which may lead to internet addiction. The high rate of internet addiction in this study needs to be taken seriously.* **Recommendation:** *Designing awareness program campaigns regarding pathological effect of internet addiction and overuse of internet for university students. Establish awareness programs for student's academic advisor about IA especially for first academic year for early detection these cases.*

Keywords: Determinants of Internet Usage& University Students, Internet Addiction.

Introduction

The internet is a widely recognized channel for information exchange, academic research, entertainment, communication and commerce today. In recent years, explosive growth in the use of the internet has been seen worldwide (Zewde et al., 2022) According to the Internet World Statistics 2023, the total number of internet users worldwide was increased to 5.16 billion which is about 64.4% of global population, especially university students (Internet World Stats, 2023). It enables to send, receive, collect, store, update, delete and share information in

various sources with many university students In spite of all of these benefits there is still draw back of the over use of internet as it is expressed in the internet addiction disorder as it articulated as too much computer uses that can harm daily function. The internet can immerse the students into an online world where excessive time spent can contribute to unhealthy behavior and many consequences as, social, physical, academic, mental and behavioral problems (Zewde et al., 2022). Internet addiction is a new disorder described in 1996 by the psychologist Kimberly Young. It is inability to control the amount of time

spent interference with digital technology. The phenomenon of internet addiction has become a main concern of the entire world, particularly among university students that requires increased attention (Young, 1998a). University students considered the most vulnerable group for internet addiction. They transmit communication with others on social network sites rather than the actual contact in real life this leads to many determinants such as personal, social, psychological and other determinants. Regarding personal determinants as, lack of confidence, low self-efficacy, introverted, low self-respect, highly interpersonal sensitivity. Social determinants, weak family support which may create a conducive atmosphere to internet addiction, lack of communication skills which may also experience new problems of adapting to university life and finding new friends, the students in this age may be away from parental control and supervision (Eldeeb et al., 2022).

Concerning psychological determinants, it may be such as moodiness, depression, stress, anxiety, low psychosomatic well-being, impulsive behavior, irritability, and restlessness. It can lead to structural changes in the central nervous system. Similar to substance use disorder and associated with symptoms such as tolerance development, withdrawal, and craving. Finally, other determinants as longer internet usage time, easier internet access, and superior internet skills can lead to addiction (Eldeeb et al., 2022; Salma et al., 2022)

Community health nurses have an effective role not only in the assessment, diagnosis and treatment of inappropriate internet usage but also in the prevention of that phenomenon especially among university students. Moreover, community health nurse work at all levels as, primary, secondary, tertiary to helping the university students to engage in programs like stress management and enhance the role of the family in protecting their children from improper internet usage

progress and observing them during using internet to prevent the excessive internet use. (Agbaria et al., 2022).

Significance of the study

Internet use has become important daily activity especially among young adults. Egypt's internet user base has reached from 77.66 million in 2022 to 80.75 million in 2023, according to Egypt data digital Statistics (Kemp 2023). Internet addiction is a prevalent problem among university students. Its harmed university students' health's social, physical, behavioral and mental aspects. The prevalence of internet addiction worldwide, through a meta-analysis samples from Europe, Asia, America, it was 28.6%. (Lozano-Blasco et al., 2022). In Egypt, the prevalence of internet addiction was 38.5% among Egypt pharmacy students (Sayed et al., 2022). Therefore, this study highlights of internet addiction and its determinants among Damanhour university students.

Aim of the study:

This study aims to identify determinants of internet usage among Damanhour university students.

Research Question:

What are the Determinants of internet usage among Damanhour University Student?

What is the level of internet addiction among Damanhour University Students?

Materials and Method

Materials

Design: A Descriptive cross-sectional research design was utilized to fulfill this study.

Setting: The current study was conducted in all faculties of Damanhour University (n= 11). These faculties namely, Agriculture, Art, Commerce, Computer and Information, Early Childhood Education, Education, Nursing, Pharmacy

Science, Specific Education and Veterinary Medicine.

Subjects: Undergraduate students enrolled in all academic years in the previously mentioned faculties of Damanhour university (2020-2021) who fulfilled the following **criteria** were included in the Study:

- Internet user Internet users: have accessibility to internet either through cell phone or laptop or computer.
 - willing to participate in the study
- Sampling:** - A convenient sample of 1049 students was selected. Based on the previous

research the sample size was estimated using Epi Info7 software program based on the total number of total populations of 51368 students enrolled in all academic years in Damanhour university as follow, expected frequency 50 %, confidence coefficient 99%. The sample size was 1049 students, through proportional allocation method to ensure the representativeness of all faculties (scientific and theoretical), the subjects from each faculty were selected. - Then from each faculty, students of both gender and all academic year were selected conveniently as showed in **table (1):**

Faculty	Population	sample
1. Agriculture	3689	75
2. Art	17101	348
3. Commerce	10091	206
4. Computer and Information	210	4
5. Early Childhood Education	1035	21
6. Education	11155	227
7. Nursing	1451	29
8. Pharmacy	2302	48
9. Science	2248	45
10. Specific Education	357	10
11. Veterinary Medicine	1729	36
Grand Total	51368	1049

Tools

Two tools were used in order to collect the required data:

Tool one: University Students' Profile Structured Self-Administered Questionnaire Sheet: This tool was developed by the researcher in order to collect data about the studied students. It included the following parts:

Part I: Students' Demographic Characteristics: This part consists of questions about: age, gender, academic year, mothers' education.

Part II: Students' Health Profile: This section included: neck or shoulder pain,

numbness of finger, low back pain, and blurred vision.

Part III: Students' Internet Usage:

- a. Devices used by students to connect internet as (computer, laptop, smart phone, I pad or tablet) and type of accessed websites, years of internet use and daily internet use.
- b. Internet usage: type of internet (Wi-Fi, mobile data), academic/nonacademic, professional, recreational uses as (playing games, watching YouTube, others), type of social media most used as Facebook, Instagram WhatsApp, Twitter, Cybersex, Telegram and Linked in.

Tool II: Internet Addiction Test (IAT) self-administered Questionnaire Sheet:

Young’s Internet Addiction Test (IAT) was developed by Kimberly Young in 1998 and validated from the original tests. It was adopted to evaluate the respondents’ level of internet addiction. It

is a 20-item questionnaire that uses 6-point Likert scale. According to Young’s Internet Addiction Test (IAT) each student was asked to respond to 20 statements which ranged from (0) never use to (5) always use. The total IAT score ranged from 0 to 100 points, it was divided into four levels according to the following table:

Score	Level of Internet Addiction	Interpretation
0-19	None	No average online user.
20-49	Mild	Average online user, the student has control over internet usage.
50-79	Moderate	Frequent problems due to internet, full impact on life.
80-100	Severe	Significant problems, evaluate the impact and address the problems.

Methods

The study was implemented according to the following steps:

I. Administrative Process:

- Official letters were obtained from the Dean of Faculty of Nursing, Damanhour University directed to each Deans of eleven Faculties in Damanhour university to inform them about the study purpose and to obtain their approval as well as to gain their cooperation to conducted the study.
- The students were choice conveniently according to previous sample size from each faculty as mentioned before. According to previously time table prepared by each faculty.

II. Development of the Study Tools:

- Tool I was developed by the researcher after reviewing recent literature to collect the required data from the studied student.
- Tool II was translated into Arabic language and revised by jury of 3 experts in the field of community health nursing to confirm that

language is clear for the studied students.

- Content validity of the study tools (I part II) were tested by a Jury consists of a group of five experts in the field of community health nursing and nursing education. Their opinions and suggestions were taken into consideration.
- Tool (I part II) and (tool II) were tested for reliability using the Cronbach's alpha coefficient test which indicated an accepted reliability of the tool ($\alpha = 0.852$), as reliability test for Young's Internet Addiction Test was done, using Cronbach`s Alpha that measured the degree of reliability. It showed high reliability of the total score of the test, Alpha = 0.899.

III. Pilot study:

A pilot study carried out on 10% of the selected subject (which was composed of 104 student who were chosen randomly and were not be included in the study sample to ascertain the clarity, feasibility and applicability of the tools and to identify obstacles that might interfere with

the process of data collection. After the pilot study, tools were revised and necessary modifications were done accordingly.

IV. Collection of data:

The data was collected from the students in the 11 faculties using tool I& II, after a brief explanation of the aim and nature of research and assure them that collected data were used only for the study purpose, and to gain their approval and cooperation during data collection. The data collection took approximately about 15-20 minutes. Data was collected over a period of 3 months (from June to August 2021)

Data Processing and Analysis:

- After data collection, the collected data was coded and transferred into especially designed format to be suitable for computer feeding.
- Data were entered into computer and analyzed using the statistical package of social science (SPSS) version 20.
- After data entry, data was checked and revised through frequency analysis, cross tabulation, and manual revision to discover any error during data entry.
- Variables were analyzed using the descriptive statistics which included: a percentage, frequencies, range (minimum and maximum), arithmetic mean, and standard deviation (SD) they are used as measures of central tendency as dispensing respectively for normally distributed quantitative data.
- Chi square test (χ^2) was used for testing the relationship between categorical variables
- Graphs were done for data visualization by using Microsoft Excel Program.

Ethical considerations:

- Ethical approval was obtained from the research ethical committee in the Faculty of Nursing, Damanhour university (code 43-d/ 17-12-2020)
- Permission was obtained to collect the data from the previous settings.
- Written informed consent was obtained from the Deans of all faculties included in the study after explanation of the aim of the study and assure them that collected data would be used only for the study purpose.
- Each student was asked for informed written consent to participate in the study
- Confidentiality of individual response was maintained
- A code number was used instead of anonymity of studied students.

Results

Figure (1): portrays that around more than three quarters (77.3%) of the studied students have moderate internet addiction level followed by less than one fifth (19.0%) of them who have mild internet addiction, while only 3.7% of them have severe internet addiction, the total score (0-100) ranged from 28.0 – 99.0 with a mean of 57.58 ± 10.79 .

Table (2): illustrates that nearly half (48.7%) of the studied students aged from 21 to less than 23 years old had severe internet addiction, more than half (51.3%) of studied male students had severe internet addiction. There were statistically significant relations between the students' age, gender and level of internet addiction ($P= 0.039$, $P= 0.020$). Moreover, more than two fifth (43.6%) of students in the first academic year had severe internet addiction with a statistically significant relation between the students' academic year and level of internet addiction ($P= 0.002$). Additionally, more than half (56.4%) of the studied students' mothers were in pre university education had severe internet addiction. There was statistically significant

relation between the mother's level of education and level of internet addiction ($P= 0.012$).

Table (3): Demonstrates that the current symptoms related to computer use, more than three quarters (79.5%) of the studied students complained of neck or shoulder pain and less than three quarters (71.8%) of the studied students complained of numbness of finger had severe internet addiction with highly statistically significant relation between neck or shoulder pain, numbness of finger and level of internet addiction ($P=<0.001$, $P=<0.001$).

Concerning low back pain, the majority (89.7%) of the studied students complained of low back pain and less than two thirds (61.5%) of the studied students complained of blurred vision had severe internet addiction with highly statistically significant relation between low back pain, blurred vision and level of internet addiction ($P=<0.001$ $P=<0.001$).

Table (4): show that more than half (56.4%) of the studied students spending on internet from 15 to less than 20 hours / day had severe internet addiction. There was highly statistically significant relation between daily spend hour on internet and level of internet addiction ($p=<0.001$). Less than half (46.2%) of them were accessible to the internet for less than 5 years had severe internet addiction. There was statistically significant relation between years of internet accessibility and level of internet addiction ($p= 0.005$). Also, the table shows that, the majority (84.6%) of the studied students were connected to internet by Wi-Fi. There was highly statistically significant relation between ways of internet connection and level of internet addiction ($p=<0.001$). Additionally, the majority (82.1%) of the studied students utilize smartphone as internet access device had severe internet addiction. There was highly statistically significant relation between smartphone and level of internet addiction ($p=<0.001$).

Moreover, the majority (87.2%) of them utilize the internet for recreational use had severe internet addiction. There was highly statistically significant relation between recreational uses and level of internet addiction ($p=<0.001$). With regard to, more than two third (67.9%) of them uses the internet for watching YouTube had severe internet addiction compared to 5.9% of them were uses the internet for other purposes such as (TikTok, Chatting). There was statistically significant relation between TikTok, Chatting and level of internet addiction ($p= 0.044$). Regarding internet websites uses, it was revealed from the table that less than half (48.7%, 41.0%) of the studied students uses Whatsapp, Facebook had severe internet addiction with a statistically significant relation between Whatsapp, Facebook uses and level of internet addiction ($p= 0.014$, $p=<0.001$).

Discussion

The internet has become the language of the era now, it is witnessing a number of accelerating changes as well as tremendous developments in the use of the internet. However, the negative side is the fact that the excessive time spent by university students can contribute to compulsive unhealthy behavior. In addition to (COVID-19) pandemic represents another psychological burden that has also affected the lives of students (Zewde et al.,2022). Internet addiction is known as problematic internet use or pathological internet use. In this context, the current study finding revealed that more than three quarters of the studied students have moderate internet addiction level followed by less than one fifth of them who have mild internet addiction and only few percentages were reported as severe internet addiction.

These findings are consistent with a study conducted by Eldeep et al (2022) in Egypt who reported that the internet addiction prevalence among university students was nearly one fifth of them experienced mild internet addiction and

more than one third had moderate internet addiction, while severe internet addiction was only detected among 2.3%. However, these results were contradicted with a study conducted by Zewde et al (2022) in Africa who reported that the prevalence of severe internet addiction among the students was 34.5%. This Variation in frequencies may be due to the different tools and criteria used to identify problematic internet use and addiction.

Also, the present study revealed that the mean age of the studied students (21.9). From those nearly half of them aged from 21 to less than 23 years had severe internet addiction. Moreover, regarding to studied academic year, it was observed that more than two fifths of those who were in rolled in first academic year had severe internet addiction. In this regard, statistically significant relation was observed between the students' age, academic year and level of internet addiction ($p=0.039$, $p=0.002$). These findings agreement with results of studies done by Abdel-salam et al (2019) in Saudi Arabia and Guzel et al (2018) in Turkey who reported that the internet usage is the same age category. These results were disagreed with the findings of a study conducted by Salma et al (2020) in Egypt who reported that more than three quarters of the study participants had severe internet addiction were less than 21 years old. This could be attributed to the academic load especially among students in the first year.

Moreover, the current study revealed that more than half of the studied students who had severe internet addiction were males with statistically significant relation between the student's gender and level of internet addiction ($p=0.020$). These findings were agreement with a study conducted by Salma et al (2020) in Egypt who reported that more than half of the studied students had severe internet addiction were males. In contrast, results of study done by Shehata et al (2021) in Egypt who reported that less than three quarters of the studied students

had severe internet addiction were females. This may be due to the difference in internet usage between gender in Egypt in the time of conducting the study and the social norms related to female using internet for long period or may male have considerable free time than studied female or financial reasons.

With respect to mothers' level of education, the current study revealed that there was statistically significant relation between the students mothers' level of education and level of internet addiction ($p=0.012$). This finding was agreement with the results of study done by Abdel-Salam et al (2019) in Saudi Arabia who reported that statistically significant relation was found between the students mothers' level of education and internet addiction level. On the other hand, these findings contradicted with a study conducted by Zewde et al (2022) in Africa who reported that no statistically significant relation between mothers' level of education and level of internet addiction was found. This may be due to the difference's cultures and social context.

Moreover, the present study clarified that there were statistically significant differences between internet addiction and physical health complaints, almost three quarters of the studied students complained of neck or shoulder pain, numbness of finger, low back pain had severe internet addiction. Concerning blurred vision, less than two thirds of them complained of blurred vision, who had severe internet addiction with a statistically significant relation between neck or shoulder pain, numbness of finger, low back pain, blurred vision and internet addiction ($p<0.001$, $p<0.001$, $p<0.001$, $p<0.001$). These results in line with findings of studies done by Eldeeb et al (2022) and Ibrahim et al (2016) in Egypt who reported that the main health problems reported by the students were blurred vision, low back pain, neck pain, shoulder pain, and numbness of

finger. It may be attributed to computer and internet use with statistically significant relation between physical health complaints and internet addiction level. In contrast, the results of a study conducted by Hunsaker et al (2021) in US who reported that the internet usage improving the young adult's health. This may be due to they are using the internet for improving their health through connecting with their physician or seeking for health information found online and changes in their health behaviors, students' lifestyles, health responsibility, physical activity and stress management.

The existing study revealed that nearly half of the studied students spent from 15 to less than or equal 20 hours on the internet daily have severe internet addiction with highly statistically significant relation was observed between daily spent hours on the internet and level of internet addiction ($p = <0.001$). This finding was in harmony with result of a study done by Ibrahim et al (2016) in Egypt who found that more than two thirds of the studied students who have severe internet addiction was using the internet for 15 hours and more per day with statistically significant relation between hours spent using internet and internet addiction level. On the other hand, these results were disagreement with a study conducted by Sharma et al (2014) in India who reported that more than two thirds of the studied students spending less than 2 hours per day on the internet. This could be explained by that university students have high exposure to the technology through their educational experience to realize their capabilities and reach the full potentials, and involve in communication websites as social media, online games, online shopping, etc.

As regards the number of years of internet accessibility among university students, the present study revealed that more than half of the studied students used the internet for less than 5 years. In this light, statistically significant relation was

found between years of internet accessibility and level of internet addiction. This finding is congruent with the result of a study done by Rahman et al (2020) in Bangladesh who reported that more than half of the studied sample used the internet for less than 5 years with statistically significant relation between years of internet accessibility and level of internet addiction. In contrast, the finding of study done by Saied S et al (2016) in Egypt who reported that less than three quarters of the studied students used the internet for more than 5 years. This could be explained by that the university students could get accustomed for using the internet at different age groups between two researches.

The current study revealed that more than three quarters of the studied students connected to internet by Wi-Fi. The majority of them utilized smartphone and reported that they use it as internet access device, followed by more than one quarter of them use computer as an internet access device. In this regard, statistically significant relation was observed between smartphone, computer and internet addiction level ($p = <0.001$, $p = <0.001$). In the same line, a study done by Eldeep et al (2022) in Egypt who found that the majority of the studied students accessed to the internet by their mobiles or smartphones with statistically significant relation between smartphone and level of internet addiction. These results were contradicted with a study done by Ibrahim et al (2016) in Egypt who reported that less than three quarters of the studied students accessed to the internet through personal computer or lab top. This is due that at 2016, they used the internet less than nowadays and this is for a number of reasons such as the coronavirus and the accessibility of numerous electronic devices.

The existing study revealed that the majority of studied students utilize the internet for recreational purposes and more

than one quarter of them utilize the internet for academic uses had severe IA. In this respect, statistically significant relation was found between recreational uses, academic uses and internet addiction level ($p < 0.001$, $p = < 0.001$). While, no statistically significant relation was found between watching YouTube and internet addiction level. Additionally, less than three quarters of them utilize the internet for online games and internet addiction level ($p = < 0.001$, $p = 0.044$).

These findings were in harmony with a study conducted by Ibrahim et al (2016) in Egypt who reported that the students use the internet for playing games and attending YouTube less than half and less than two thirds respectively. These findings were disagreed with a study done by Adorjan et al (2021) in Germany who reported that the most common reason for using the internet was information searches, followed by random browsing. While only less than one quarter of the studied sample used the internet for online gaming. This may be due to different between developed countries in using the internet for educational purpose.

Additionally, the current study revealed that the most common websites used among university students were Whatsapp and Facebook by less than half of the studied students with severe internet addiction. In this regard, statistically significant relation was observed between internet Whatsapp, Facebook and level of internet addiction ($p = 0.014$, $p = < 0.001$). These findings were in harmony with study conducted by Saied et al (2016) in Egypt

who reported that around half of Egyptian students used Facebook and Whatsapp with statistically significant relation between social media uses and level of internet addiction. Students tend to be online social interaction rather than connect with the real social interaction.

Conclusion: Based upon the results of the present study, it can be concluded that, the present study integrated various determinants concerning the usage of internet applications to determine the factors which may lead to internet addiction. The high rate of internet addiction in this study needs to be taken seriously.

Recommendations: Based on the current study finding the following recommendation suggested:

- Designing awareness program campaigns regarding pathological effect of internet addiction and overuse of internet for university students.
- establish awareness programs for student's academic advisor about IA especially for first academic year for early detection.
- Formulate appropriate policy to control un educational websites available through university internet connection .
- Raise community's awareness for all age group through mass media especially adolescents about proper internet usage and internet addiction including: risk factors, signs & symptoms.
- Conducting interventional study on those who are considered has internet addiction.

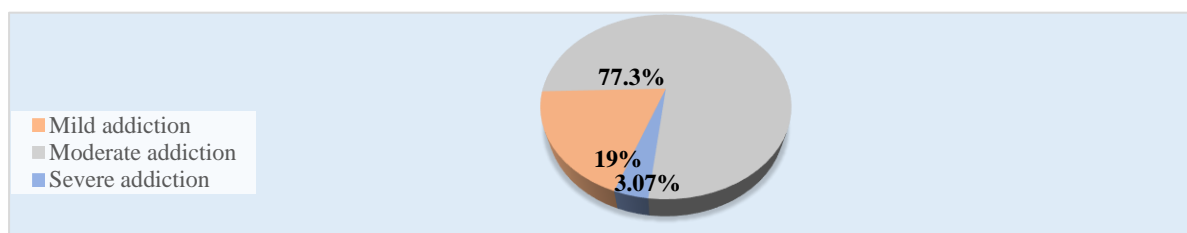


Figure (1): Distribution of the Studied Students According to their Level of Internet Addiction

Table (2): Relation between students' level of Internet Addiction and their Demographic Characteristics

Demographic Characteristics	Level of Internet Addiction						χ^2	P
	Mild addiction (n = 199)		Moderate addiction (n = 811)		Severe addiction (n = 39)			
	No.	%	No.	%	No.	%		
Age in years								
<21	34	17.1	210	25.9	12	30.8	10.088*	0.039*
21 –<23	127	63.8	427	52.7	19	48.7		
23 – 25	38	19.1	174	21.5	8	20.5		
Gender								
Male	71	35.7	374	46.1	20	51.3	7.848*	0.020*
Female	128	64.3	437	53.9	19	48.7		
Academic Year								
First Year	34	17.1	210	25.9	17	43.6	20.780*	0.002*
Second Year	65	32.7	187	23.1	10	25.6		
Third Year	52	26.1	203	25.0	8	20.5		
Fourth Year	48	24.1	211	26.0	4	10.3		
Mother's Level of Education								
Illiterate \ read and write	22	11.1	36	4.4	1	2.6	23.884*	MCp= 0.012*
Literate certificate	7	3.5	78	9.6	4	10.3		
Primary	6	3.0	22	2.7	0	0.0		
Pre university education	110	55.3	449	55.4	22	56.4		
University	34	17.1	148	18.2	8	20.5		
Post graduate	8	4.0	18	2.2	2	5.1		
Death	12	6.0	60	7.4	2	5.1		

Table (3): Relation between Students' Level of Internet Addiction and their Health Profile

Health Profile	Level of Internet Addiction						χ^2	p
	Mild addiction (n = 199)		Moderate addiction (n = 811)		Severe addiction (n = 39)			
	No.	%	No.	%	No.	%		
Current Symptoms Related to Computer Use								
Neck or Shoulder Pain								
No	82	41.2	223	27.5	8	20.5	16.027*	<0.001*
Yes	117	58.8	588	72.5	31	79.5		
Numbness of Finger								
No	125	62.8	353	43.5	11	28.2	29.404*	<0.001*
Yes	74	37.2	458	56.5	28	71.8		
Low Back Pain								
No	80	40.2	191	23.6	4	10.3	28.234*	<0.001*
Yes	119	59.8	620	76.4	35	89.7		
Blurred Vision								
No	75	37.7	202	24.9	15	38.5	15.271*	<0.001*
Yes	124	62.3	609	75.1	24	61.5		

Table (4): Relation between Students' Level of Internet Addiction and their Internet Usage

Students' Internet Usage	Level of Internet Addiction							χ^2	p
	Mild addiction (n = 199)		Moderate addiction (n = 811)		Severe addiction (n = 39)				
	No.	%	No.	%	No.	%			
Daily Spend Hour on Internet									
<5hrs	51	25.6	26	3.2	2	5.1	136.502*	<0.001*	
5-< 10 hrs.	43	21.6	149	18.4	7	17.9			
10 - <15	16	8.0	229	28.2	8	20.5			
15- ≤ 20	89	44.7	407	50.2	22	56.4			
Years of Internet Accessibility									
<5	111	55.8	406	50.1	18	46.2	14.874*	0.005*	
5 - < 10	77	38.7	374	46.1	15	38.5			
10 - ≤ 15	11	5.5	31	3.8	6	15.4			
Ways of Internet Connection									
Wi-Fi	123	61.8	665	82.0	33	84.6	36.809*	MC _p <0.001*	
Mobile data	72	36.2	142	17.5	6	15.4			
Wi-Fi +Mobile data	4	2.0	4	0.5	0	0.0			
Internet Access Devices #									
Computer	13	6.5	111	13.7	11	28.2	15.789*	<0.001*	
Lap top	32	16.1	171	21.1	5	12.8	3.769	0.152	
Smart phone	147	73.9	705	86.9	32	82.1	20.713*	<0.001*	
Tablet / I pad	26	13.1	45	5.5	0	0.0	17.248*	<0.001*	
Reasons of The Internet Uses#									
Academic use	135	67.8	506	62.4	11	28.2	21.862*	<0.001*	
Nonacademic use	8	4.0	23	2.8	1	2.6	0.790	0.674	
Professional use	3	1.5	20	2.5	0	0.0	0.634	MC _p =0.671	
Recreational use	115	57.8	700	86.3	34	87.2	85.279*	<0.001*	
Recreational Uses#									
Playing games	40	34.8	262	37.4	19	55.9	5.214	0.074	
Watching YouTube	90	78.3	520	74.3	23	67.6	1.715	0.424	
Other (Tiktok, Chatting)	0	0.0	5	0.7	2	5.9	6.609*	MC _p =0.044*	
Internet Websites Uses#									
Whatsapp	101	50.8	495	61.0	19	48.7	8.604*	0.014*	
Facebook	84	42.2	509	62.8	16	41.0	32.538*	<0.001*	
Instagram	45	22.6	209	25.8	14	35.9	3.118	0.210	
Telegram	25	12.6	200	24.7	8	20.5	13.604*	0.001*	
Cybersex	19	9.5	204	25.2	9	23.1	22.616*	<0.001*	
Twitter	24	12.1	141	17.4	8	20.5	3.766	0.152	
Microsoft team	23	11.6	73	9.0	10	25.6	11.913*	0.003*	
Zoom	16	8.0	85	10.5	4	10.3	1.059	0.589	
Linked In	8	4.0	54	6.7	5	12.8	4.664	0.097	
Others (WeChat- Pinterest)	21	10.6	24	3.0	0	0.0	24.256*	<0.001*	

More than one answers χ^2 : Chi square test MC: Monte Carlo *Statistically significant at $p \leq 0.05$

p: p value for comparing between the studied categories

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