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YOUNG ADULTS' INTERNET ADDICTION LEVELS AND ITS CONTRIBUTING FACTORS.

Qamar Yasmeen

ABSTRACT

INTRODUCTION: Using the internet has become essential in our daily lives as technology advances with each passing day. Every age and gender needs access to the internet for various purposes in their daily lives. **OBJECTIVE:** The purpose of this study was to determine the Level of Internet addiction among medical students and its contributing factors. **METHODS:** Between March and June of 2023, a cross-sectional study was carried out among students. In order to gather data, students were given a structured questionnaire, and the Internet Addiction Test (IAT) was used to measure internet addiction. Addiction was defined as a score ≥ 50.To find the variables connected to internet addiction, linear logistic regression analyses were performed. **RESULTS:** Out of a total of 555 medical students in different medical colleges, 323 were males and 232 were females. The level of Internet addiction from moderate/severe was 44% and 18% respectively. Linear regression analysis showed Gender, year of study, average sleep duration, time frame for frequent internet use, and primary purpose of internet use were the main factors that independently continued to be significantly ($p < 0.05$) associated with internet addiction. **CONCLUSION:** This study's greater incidence of IA could have detrimental effects on people's social, mental, and physical well-being in addition to financial ramifications

KEY WORDS: Internet addiction, regression analysis, factors

Correspondence authors: Qamar Yasmeen (PhD): Assistant prof. (Biochemistry) Independent Medical College (IMC), Faisalabad

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INTRODUCTION

Internet addiction is one of the addictive behaviors that is expanding the fastest and is a serious public health issue that affects a lot of people globally. When someone uses the internet excessively on a regular basis, it's referred to as internet addiction or problematic internet use. A psychological reliance on the internet, internet addiction is defined by salience/excessive use, withdrawal, tolerance, negative consequences/conflict, cravings, and mood modification. Students at universities and colleges are using the internet much more frequently these days. The number of people using the internet has skyrocketed; as of late, there were over 3.5 billion users worldwide. One of the main causes of its excessive use is the availability of internet access on portable devices like smartphones and tablets. It is now an essential component of contemporary life [1]. The younger generation has grown up with this facility, is used to its 24-hour availability, and finds it impossible to imagine completing their everyday tasks without it. The free internet on college campuses and the lack of rigorous parental supervision put youth, especially young adults heading to college, at risk for problematic internet use [2 3]. University students who use the internet excessively suffer from psychological and physical issues as well as a decline in their academic performance. Teenagers and young adults are especially vulnerable, even though internet usage is widespread across all age groups and genders [4]. Because teenagers are still developing psychologically and emotionally, they are less self-regulatory, more susceptible to media influence, and more likely to engage in addictive behaviors. These factors account for the increased prevalence in this age group. The internet has become such an integral part of our lives that we are unable to completely cut it out of our daily routines even under the excuse that it may have negative consequences [5]. On the one hand, there is an abundance of academic

content available on the internet, and students find it impossible to complete their coursework without it. Evidence for this perplexing situation must come from empirical studies on internet addiction as well as various factors pertaining to medical students' academic achievement [6]. For medical students to succeed academically, internet availability and usage are essential. But in addition to schoolwork, excessive gaming, entertainment, socializing, and networking through various social media platforms raise the risk of problematic internet use and internet addiction [7, 8]. Internet addiction in this population is also significantly influenced by living off campus, spending more time online, using the internet more frequently, and having a lower grade point average. The interaction of social, academic, behavioral, and demographic factors may exacerbate the issue of internet addiction and its related consequences among students [9]. The purpose of this study was to determine the level of prevalence of internet addiction and the contributing factors among medical students in Faisalabad.

METHODOLOGY

A cross-sectional study was conducted in Different medical colleges in Faisalabad, Pakistan, from April to June 2023. The registered medical undergraduate students (N=555) enrolled in pre-clinical years at the time of data collection using a random sampling technique met the inclusion and study population criteria. To gather data, a self-administered questionnaire was employed. The Internet Addiction Test (IAT-20) score was used to measure internet addiction as the dependent variable in this study [10, 11]. The Internet Addiction Test (IAT), a 20-item measure, assesses the extent of obsession, obsessive use, behavioral issues, emotional shifts, and the effect of internet use on the functioning of the adolescent. Each item's response score falls between 0 and 5, and the overall score can be anywhere from 0 to 100 points. To evaluate internet addiction (IA), the following cut-off scores were used: IA symptoms range from none at all (0–19); moderate but unproblematic (20–39); at risk (40–69); and severe (70–100).). A score threshold ≥ 50 was adopted to define addiction. The internet use patterns, the main reason for using the internet, and sociodemographic traits were the independent variables. With Windows SPSS version 24, the data was analyzed. Frequency and percentages were used to summarize categorical variables. In order to determine the factors linked to internet addiction, linear regression analysis was used, along with corresponding 95% confidence intervals. $p<0.05$ was the threshold for significance in all statistical analyses.

RESULTS

The features of demographic factors and surfing tendencies among first-year preclinical students are presented in Table 1. The majority of participants (72.8%) were in the 18–22 age range. Male students made up the majority, 58.2%. 64.1% of the students were in their first year of medical school. Most students slept for less than six hours (58.6%), and the majority of devices used for internet access were laptops and mobile phones (56.4%). Social media was the main reason for using the internet (i.e. YouTube, Instagram, Twitter, Facebook and WhatsApp). The majority of participants (58.6%) used the internet most frequently in the evenings. The prevalence of internet addiction among medical students is shown in Figure 1. According to the results of the IAT, 44%, 30%, and 18% of participants, respectively, were classified as having a moderate, severe, and mild internet addiction. However, only a small percentage of participants (scored <20) were normal internet users. Table 2 presents the findings from a linear regression analysis that investigated the relationships between the variables linked to internet addiction in medical students. Gender, year of study, average sleep duration, time frame for frequent internet use, and primary purpose of internet use were the factors that continued to be significantly ($p < 0.05$) associated with internet addiction in linear regression analysis. Comparing undergraduate students who used the internet at home and at the hostel, they found that those who used it at the cafeteria had a lower likelihood of being addicted to the internet (95%CI 0.16, 0.47, $p = 0.36$). Students who used the internet for five hours a day or longer had a higher prevalence of internet addiction (95%CI 0.29, 0.65, $p = 0.00$). Among medical students in the 18–22 age group, there was a higher prevalence of moderate–to–severe internet addiction (46.6%). Comparatively speaking to female students, male students (37.6%) were found to be more addicted to the internet. Since 33.3% of the participants used the internet for more than five hours every day, day or night, it was determined that they were moderately to severely internet addicted. Social

Variables	Frequency (%)
Age	
18-22	404 (72.8)
23-27	151 (27.8)
Gender	
Male	323 (58.2)
Female	232 (41.8)
Year of study	
1st Year	356 (64.1)
2nd Year	199 (35.9)
Gadget for internet use	
Laptop	25 (4.5)
Desktop	13 (2.3)
Mobile	204 (36.8)
Mobile & Laptop	313 (56.4)
Average sleeping hours	
6h	325 (58.6)
7h	45 (8.1)
8h	172 (31)
More than 10 h	13 (2.3)
Living arrangement	
Living with Family	364 (65.6)
Hostel	137 (24.7)
Living with Relative	64 (9.7)
Average daily internet usage	
1h	13 (2.3)
2h	105 (18.9)
3h	101 (18.2)
4h	151 (27.2)
5h	185 (33.3)
the time frame for frequent internet use	
Morning	9 (1.6)
Afternoon	80 (14.4)
Evening	325 (58.6)
Midnight	141 (25.4)
Primary objectives of using the Internet	
Online games	50 (9)
Netflix	26 (4.7)
Social media	400 (72)
Learning websites	77 (13.9)
Favorite places for internet use	
Hostel	120 (21.6)
Home	280 (50.4)
Cafeteria	100 (18)

media, such as Facebook, YouTube, Instagram, and Twitter, was used by the majority of students (52.2%) when they were online. 1st year medical students were found to have a higher internet addiction than 2nd year students (47.4%; 95%CI 0.43, 0.70, p = 0.00), as shown in the table 2.

Table: 1 Characteristics of study and internet use practices of participants (N=555)

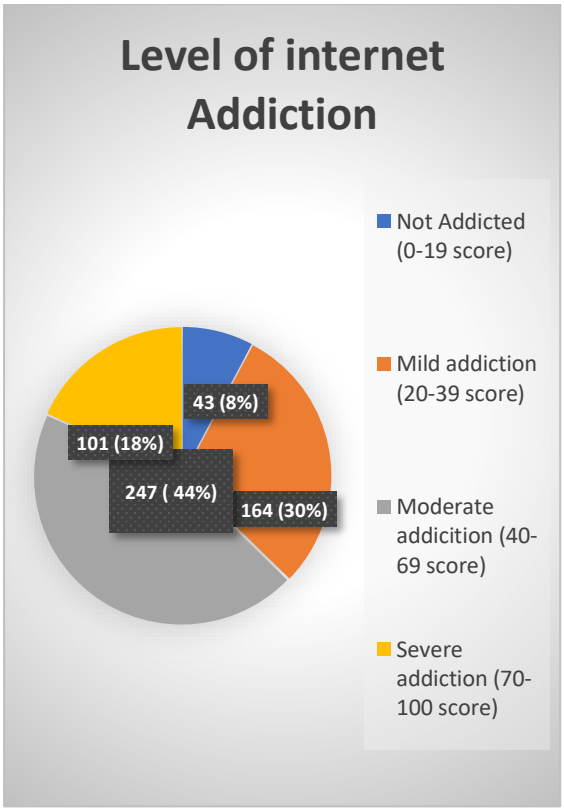

Figure 1: Level of internet addiction among medical students (n=555)

DISCUSSION

Using the internet has become essential in our daily lives as technology advances with each passing day. Every age and gender needs access to the internet for various purposes in their daily lives. While there are many benefits to using the internet, there are also some clear drawbacks. Children, particularly students of all ages, are more susceptible to develop an internet addiction. The purpose of this study was to assess the extent of internet addiction among medical students while taking these detrimental effects into consideration [12]. Youth in Pakistan are becoming more and more accustomed to using the Internet [13, 14, 15]. Questions about the Internet's potential impact on society and its users, both good and bad, have arisen in response to its rapid expansion in use [16]. The results of the current study revealed that 18% and 44% of the students, respectively, reported having a severe or moderate Internet addiction. Prior research has demonstrated that medical students have a significant amount of free time, which supports the high prevalence of Internet addiction found in the current study. Through the Internet, they always seek to communicate and use it to escape the stressful aspects of university life, such as studying and exams [17, 18, 19]. Interpersonal addiction was present in 64.5% of medical students, according to an analysis. Consistent with our findings, this study showed that most students had access to the Internet at home, particularly via mobile devices [20.] In the current study, spending over 4 hours a day on the Internet is another characteristic of Internet addiction. This is because students are unable to limit how much time they spend on the Internet, especially when using communication websites, and because they have access to the Internet at home around-the-clock. According to the current study, students who struggled with moderate to severe addiction tended to use the Internet after midnight. Less than half (44.2%, 208/471) of medical students in a Casablanca who used their smartphones to access the internet were internet addicts; students who used their phones for daytime internet browsing were the most addicted, with a 95% confidence interval (CI) of 0.77 to 1.80 higher than those who only used them during the day [21]. Notably, students who engaged in their favorite online activities had a higher intention to avoid (IA) (10.27 to 5.96). In the current study, there was a significant correlation found between internet addiction and short sleep duration (6 hours or less). Prior researches has shown a link between inadequate sleep and Internet addiction [22, 23]. It's been suggested that using the Internet late at night disturbs sleep patterns. This lack of sleep weakens the immune system, making people more prone to illness, and causes extreme exhaustion that frequently impairs functioning or academic performance [24]. Facebook, Instagram, YouTube, Snapchat, Skype, WhatsApp, and other social media platforms were frequently utilized by this demographic. It is possible that these students are spending less time online for academic purposes, which could have an impact on their performance or productivity in the classroom and raise the possibility of mental, psychosocial, and physical consequences [25].

Table: 2 Linear Regression analysis for the factors associated with internet addiction

CONCLUSION

This study's greater incidence of IA could have detrimental effects on people's social, mental, and physical well-being in addition to financial ramifications. These issues taken together could have detrimental effects on academic achievement. Overuse of the internet provides a diversion from academic pursuits. Students who are in this situation are less productive in their academic endeavors. When utilized constructively, the internet can be informative and helpful in both academic and socioeconomic contexts, helping college students to reach their long-term objectives.

Variables	**Moderate/Severe Addicted (%)**	**(95%CI)**	***P-value***
Age			
18-22	259 (46.6)	(0.24, 0.03)	.00
23-27	89 (16.1)	1.00	
Gender			
Male	209 (37.6)	1.00	.00
Female	139 (24.5)	(0.23, 0.15)	
Year of study			
1st Year	265 (47.7)	(0.43, 0.70)	.00
2nd Year	83 (14.9)	1.00	
Gadget for internet use			
Laptop	12 (2.1)	1.00	
Desktop	5 (0.9)	(0.67, 0.46)	0.72
Mobile	133 (23.9)	(0.26, 0.44)	0.61
Mobile & Laptop	198 (35.6)	(0.23, 0.45)	0.54
Average sleeping hours			
6h	223 (40.1)	1.00	
7h	97 (17.4)	(0.52, 0.01)	0.04
8h	22 (3.9)	(0.34, 0.02)	0.05
More than 10 h	6 (1)	(0.82, 0.11)	0.02
Living arrangement			
Living with Family	217 (39)	(0.39, 0.08)	0.21
Living with Relative	27 (4.8)	(0.19, 0.33)	0.61
Hostel	103 (18.5)	1.00	
Average daily internet usage			
1h	7 (1.2)	1.00	
2h	61 (10.9)	(0.36, 0.61)	0.26
3h	65 (11.7)	(0.30, 0.67)	0.45
4h	103 (18.5)	(0.20, 0.75)	0.04
5h	112 (20.1)	(0.29, 0.65)	0.00
The time frame for frequent internet use	12 (2.1)	1.00	
Morning	58 (10.4)	(0.24, 0.16)	0.21
Afternoon	195 (35.1)	(0.18, 0.21)	0.38
Evening	92 (16.5)	(0.07, 0.28)	0.02
Midnight			
Primary objectives of using the Internet	6 (1)	1.00	
Online games	19 (3.4)	(0.28, 0.38)	0.21
Netflix	290 (52.2)	(0.38, 0.02)	0.04
Social media	39 (7.2)	(0.14, 0.61)	0.58
Learning websites			
Favorite places for internet use	102 (18.3)	1.00	
Hostel	278 (50)	(0.02, 0.69)	0.05
Home	22 (3.9)	(0.16, 0.47)	0.36
Cafeteria			

LIMITATIONS

A cross-sectional study that identified some risk factors and Internet addiction without being able to establish a cause-and-effect relationship

ETHICS APPROVAL: The ERC gave ethical review approval.

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin.

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CONFLICT OF INTEREST: No competing interest declared.

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