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## A Case Study of Internet Addiction among Undergraduate Students of the University of Karachi

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**Abstract:** *The Internet serves as a medium not only in the transportation of information but also in connectivity. The boom in technology resulted in dependency on the internet at work, home and social interactions. Internet addiction can be described as the excessive or inadequately controlled urges, desires, wants, or fixation to use gadgets having internet access. It was a cross-sectional study. The data was collected from the students of the university of Karachi. The sample size was 200. Chen Internet Addiction Questionnaire was used to record the data. In the study, 23% of the participants were male, while 77% were female. In our study, the participants conceded that their relationships as well as their performance in studies and jobs are affected by the excessive use internet. Internet addiction is considered highly prevalent in Pakistan's society and often lead to distress, anxiety, emotional and mental disturbances, and eating and sleep patterns disorders.*

**Key Words:** Internet-addiction, Dependency, Behaviours, Distress, Disorders, Depression, Communication, Information

### Introduction

The Internet is the global network through which all types of hardware devices as well as software devices are interconnected with each other, through which storage is done as well as retrieval of information, circulation of information and communication can also be done through the space and time (Ritzer, G.

Ed., 2007). The Internet serves as a medium not only in the transportation of information but also introducing connectedness at all levels (Slevin, J. 2002).

Uses of the internet cannot be undermined or overlooked. It is used widely around the globe and there are millions of reasons for which one can justify the use of the internet. It provides accessible information

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and also helps to gather answers from across the world. It often helps the individual to share its views with different people who live across the globe. It introduces individuals to peer groups who can be a different set of friends than their own (Agarwal, V., & Kar, S. K. (2015). It brings the world to our fingertips; we can access any information round the clock. Individuals carry the internet all the time through their smart phones. People can access all kind of information on the go. The mobile phone networks also provide an internet connection with their sim cards, so that anyone who has this facility can use the internet in whichever way they want to and wherever they want to. Globally all the people in the world are connected to each other through the internet. Smartphones be a common interface for all individuals to use the internet (Miranda, J., Makitalo, N., Garcia-Alonso, J., Berrocal, J., Mikkonen, T., Canal, C., & Murillo, J. M. 2015).

As the internet is a basic resource used by people these days, most of people use it for the acquisition of knowledge, to navigate, and to study as well. Internet acts like a big brain for people, in which they feed some information and receive their desired or required outcomes only (Miranda, J., Makitalo, N., Garcia-Alonso, J., Berrocal, J., Mikkonen, T., Canal, C., & Murillo, J. M. 2015).

People search for good jobs through the internet as well as the internet can also be used for relaxation activities. An individual can use their creativity and use the internet in various ways. Also, the internet expose a normal being to the knowledge of the latest technology, and sometimes it also provide entertainment and let people relax. The use of the internet is entirely dependent on the individual's

preferences and choices. Every aspect of life depends on the internet in one way or the other; therefore, it is justifiable to say that the internet has taken over the world (Shek, D. T., Yu, L., & Sun, R. C. 2016).

The Internet has become a basic need of people. No individual can perform their occupational duties properly without the internet. One way or the other, every individual uses the internet daily in their lives.

Internet addiction is defined as excessive or inadequately controlled fixations, wants, desires urges, or behaviours, with relation to the use of computers and/or other electronic devices having internet access. This is something that can lead to impairment and can also cause distress (Roy, S. K. 2009).

This condition is getting famous in society and is very popular in the media as well as in the community of researchers, as this excessive use of the internet or the urge to use it can be a possible cause of many different kind of disorders (Awan, S. 2015).

Internet addiction is a common problem among undergraduate students worldwide. It impacts the cognitive development and functioning of university students negatively which may result in low academic achievement and subsequent indulgence in unsafe activities. Low academic achievement leads to anxiety, stress, and poor social networking (Yosef Zenebe, 2021).

Internet addiction is considered highly prevalent among the society of Pakistan. Some cross-sectional studies have been conducted, and it says that in the overall population, addiction to the internet is highly evident 24%. It was also noted that psychological morbidity was also high among the people who were

addicted to the internet as compared to those who were not addicts. It was concluded that all of these addicts spend a lot of time in front of the computers in online activities, and they are also found to be socially anxious (Tarofder, A. K., Azam, S. F., & Jalal, A. N. [2017](#)).

Internet addiction disorder is one of the latest forms of addiction. From the early research, it is suggested that any individual who spend more than 15 hours a day on the internet is suffering from an internet addiction disorder. These days internet addiction disorder is highly prevalent in society (*Public Policy Statement*, 2011). The classification of internet addiction disorder is still under debate, and there has been many ways proposed to classify them. The most acceptable out of all the researches classification was based on the impulsivity and behaviours of the individuals hence the classification of internet addiction disorder is mentioned below.

1. **Cyber-sexual Addiction:** this means that the individual spends time on the internet by the compulsive use of the adult website, engage in cybersex or cyberpunk things.
2. **Cyber-relationship addiction:** this means that the individual is involved in online relationships.
3. **Net-compulsions:** this means that the person is obsessively involved in online gambling as well as shopping or may be day trading.
4. **Information overload:** this states that the individual is involved in surfing the web or searching the databases.
5. **Computer addiction:** this means the individual is obsessively involved in online gaming (Rajendran, R., & Vivekanandan, K. [2011](#)).

Similarly, like other addictions, any form of internet addiction also brings modifications of mood, distress, and decreased tolerance among individuals.

The occurrence of Internet Addiction Disorder is worldwide, but it is most frequent in those countries where there is widespread of access to computers as well as technology. Its onset is supposed to be in the late 20s or early 30s when new exposure has been provided to the individuals and they enter a new phase of life (Miranda, J., Makitalo, N., Garcia-Alonso, J., Berrocal, J., Mikkonen, T., Canal, C., & Murillo, J. M. [2015](#)). The problematic usage of this amazing technology internet can lead to an internet addiction disorder. Individuals having internet addiction disorder exhibit psychomotor agitation, anxiety as well as instability in their moods. They have compulsive thoughts, and cravings for the internet, and waste their time surfing the internet even if their lives are compromised (Ferraro, G., Caci, B., D'Amico, A., & Di Blasi, M. [2007](#)).

A study states that that the level of addiction was high among male students as compared to female students. Moreover internet addiction is really common among college students these days and it is a frequent phenomenon. While excessive use of the internet is highly associated with increased symptoms of dissociation (Hur, M. H. [2006](#)).

CIAS is a validated and reliable measure used to find out about internet addiction. It is a 26-item self-reported questionnaire. It is been scored on a 4-point Likert scale. It covers 5 dimensions including the compulsive use of the internet, tolerance, withdrawal problems from the internet as well as management of

interpersonal relationships and time. It also helps to investigate the weekly usage of the internet and what is experience an individual gets after using the internet for so long. According to this scale, a score of individuals higher than 69 are considered as addicted.

For treating internet addiction disorders, there have been psychological approaches as well as non-psychological approaches. In non-psychological treatment approaches, the individuals are given pharmacological interventions for internet addiction disorder. The individuals are given selective serotonin reuptake inhibitors (SSRIs) to reduce their psychiatric symptoms. In some studies to deal with depression bupropion is also given (Widyanto, L., & Griffiths, M. 2006). For the psychological approaches, motivational interviewing was conducted to manage the symptoms of internet attention disorder. With this also community reinforcement and family training has been prescribed to deal with internet addiction disorders. Reality therapy as well as cognitive behavioural therapy was also conducted to manage the symptoms of internet addiction disorders. Several different types of techniques were also utilized for the management of such individuals (Dong, G., Lu, Q., Zhou, H., & Zhao, X. 2011). The results of another study concluded that internet addiction is highly associated with a psychiatric disorder. It was also suggested to that these psychiatric disorders should be properly evaluated as well as treated so that their deteriorating effects should not affect the prognosis of addiction to the internet. Moreover, it was suggested to constitute more studies to study this relationship (Widyanto, L., & Griffiths, M. 2006). The Internet has been an essential part of the life of students. As was

previously mentioned that the use of the internet has been the same in the students as well. But most importantly students utilize the internet in:

1. Doing their assignments.
2. Making their projects
3. Writing their thesis
4. Studying
5. For spending leisure time.
6. Gaming online.

However, sometimes the excessive time spent on the internet lead these students towards internet addiction disorder. Mobile phones have further made it easy to use the internet on the go. Therefore, there is rarely time spend where students or individuals are out of the reach of the internet (Dong, G., Lu, Q., Zhou, H., & Zhao, X. 2011). Hence it was important to find out to what extent internet addiction is found in the students of health education and sports sciences.

### Consequences of Internet Addiction

Dependency on the internet for work or studies is understandable but getting hooked to it and incapacity to find a healthy outdoor physical activity has dire consequences, some of which are marked by the researchers and are as follows:

### Mental Health

Mental health is severely compromised in children and adolescents who play video games and their ST is more than the prescribed time. Psychologists have observed that the prognosis of patients with autism signs, often turn out that they commit to several hours of video games. They are hooked to these games so much so that they do not indulge in any

outdoor activities specially sports. It leads to limited social exposure which develops behavioural issues (Jesus Dueñas Becerra, 2019).

### **Anxiety**

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It is observed that increased dependency on technology is associated with an increased level of anxiety symptoms, depression, aggression, and attention and behavioural problems (Oswald, T.K et al, 2020).

### **Risk of Low Academic Achievement**

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It also results in lower academic performance of students; they remain at risk of low achievement in language, math, reading, and Grade Point Average (GPA) (Oswald, T.K et al, 2020; Mundy, L.K. 2020).

### **Diabetes**

In the present era, diabetes mellitus has emerged as a prime threat to human health, especially in developing countries where it is one of the major causes of fatality. A sedentary lifestyle or lack of ample physical activity is one of the major causes of diabetes. Internet addiction leads to a sedentary life style. Physical activity and workout plan are proved to be a deterrent not only in diabetes and glucose intolerance morbidity but also in cardiovascular diseases (S. Aslam, et al. 2015).

### **Obesity**

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A sedentary lifestyle and lack of physical activity result in an unbalanced eating pattern; it includes the consumption of processed foods containing refined sugar and high content of saturated fats. This is considered the prime reason of child obesity occurrences in

developing countries (Popkin B. M., et al. 2007).

### **Methodology**

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It was a cross-sectional study. The data was collected from the students of the university of Karachi. The sample size was 200 which were calculated through soft software which is a calculator for sample size. The sampling technique called non-probability sampling was used in this research. Only undergraduate students with age 18 to 25 years were included in the study. Both male and female genders were included. Students who were not willing to participate were excluded from the study. The data collection tool was Chen Internet Addiction Scale, which has a 4 point Likert scale. The questionnaire was distributed among the students and they were explained about it. SPSS version 22 was utilized to analyze the data. The calculation used was frequency as well as percentage. The study was approved by the Institutional Review Committee. The participants were completely explained about the procedure, and written consent was also taken from them. The consent form included a clause that the data of the participants will be coded and will remain confidential.

### **Results**

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Count with percentages reported for age group and gender of the participants. Frequency and percentages were calculated for all the variables. The significant P value was less than 0.05. Graphically the data was presented in the form of bar charts. In the study, 23% of the participants were male, while 77% were female. Among the participants the age of the

participants was 10.5% of the participants aged 18 years old, 9% participants were 19 years old, 20% of the participants were 20 years old, 25% of the participants were 21 years old, 27% of the participants were 22 years old and 9% of the participants were 23 years old. The participants were asked if they feel restless and irritable when the internet is disconnected or unavailable. 47% of the participants said that it does not match their experience at all, 46% of the participants said that it probably does not match their experience at all, 62% of the participants said it probably matches their experience; while 45% of the participants said that it matches their experience.

The participants were then questioned if they feel energized when they are online. 57% of the participants said that it does not match their experience at all, 61% of the participants said that it probably does not match their

experience at all, 62% of the participants said it probably matches their experience; while 19% of the participants said that it definitely match their experience. The participant's total CHEN score was calculated. Out of total 200 participants, 59 participants that are 30% of the participants were found addicted to the internet while 141 participants that is 70% participants were found not addicted to the internet.

The participants were asked if they have tried to spend less time online but had been unsuccessful. 31% of the participants said that it does not match their experience at all, 38% of the participants said that it probably does not match their experience at all, 22% of the participants said it probably matches their experience; while 9% of the participants said that it definitely matches their experience.

**Table 1.** Gender of the Participants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	45	22.5	22.5	22.5
	Female	155	77.5	77.5	100.0
	Total	200	100.0	100.0	

**Table 2.** Age of the Participants

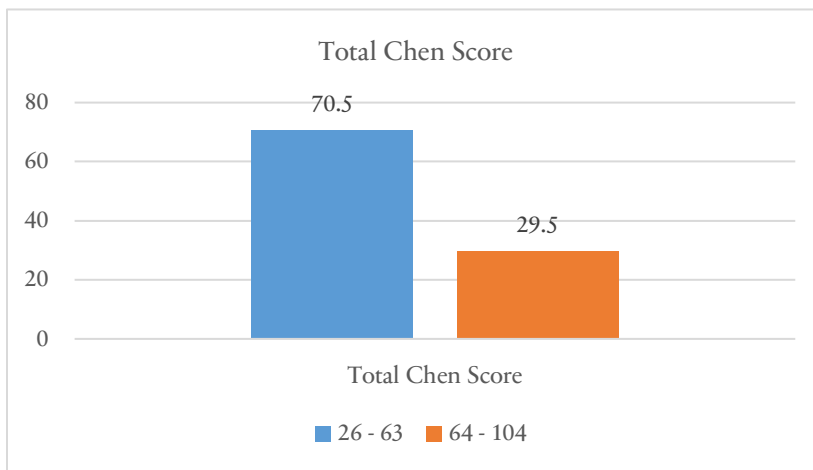
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 years old	31	10.5	10.5	.5
	19 years old	18	9.0	9.0	9.5
	20 years old	40	20.0	20.0	29.5
	21 years old	49	24.5	24.5	54.0
	22 years old	54	27.0	27.0	81.0
	23 years old	8	9.0	9.0	100.0
	Total	200	100.0	100.0	

**Table 3.** I feel Restless and Irritable when the Internet is Disconnected or Unavailable.

	Frequency	Percent	Valid Percent	Cumulative Percent
Does not match my experience at all	47	23.5	23.5	23.5
Probably does not match my experience	46	23.0	23.0	46.5
Valid Probably matches my experience	62	31.0	31.0	77.5
Matches my experience	45	22.5	22.5	100.0
Total	200	100.0	100.0	

**Table 4.** I feel Energized Online.

	Frequency	Percent	Valid Percent	Cumulative Percent
Does not match my experience at all	57	28.5	28.6	28.6
Probably does not match my experience	61	30.5	30.7	59.3
Valid Probably matches my experience	62	31.0	31.2	90.5
Definitely matches my experience	19	9.5	9.5	100.0
Total	199	99.5	100.0	
Missing System	1	.5		
Total	200	100.0		



**Graph 1**



## **Discussion**

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Internet Addiction has become the problem of the new era. Recently, most of the population is getting addicted to the internet. Nowadays, not only adults but children are also found addicted to the internet. In one of the recent studies, in the year 2015, internet addiction was studied, and it was researched what individuals do on the internet that makes it addictive. Online gaming was one of the aspects that were studied, and the conclusion was internet has become an integral part of everyday life, and because of its important role in the life of individuals, this is also leading towards addiction. And because of this addiction to the internet, negative behaviours and signs are also occurring. The most common consequence is failing at school, failing in family, and not able to maintain relationships. Also in our study, the participants concluded that their family, relationships as well as works like school and job performances are also affected by the excessive use of the internet (Liaqat, R. M., Farooq, A., & Rehman, S. [2017](#)).

Another research was carried out in which internet addiction as well as its dire consequences were studied. The result of the study concludes that internet addiction brings changes in sleeping patterns. The person addicted to internet use yearns for privacy and ignores responsibilities. Also, the personality traits of the individual change with internet addiction. The use of the internet exposes the students to a unique type of independence that they have never experienced before. Internet use is beneficial but its addiction results in undesirable outcomes. Similarly, in our study, individuals try to have privacy, and the sleep

patterns of the individuals are also disturbed because of excessive use of the internet. Moreover, the participant's daily routine is also compromised because of their addiction to the internet (Awan, S. [2015](#)).

Getting in more depth of internet addiction a research was conducted upon the occurrence of internet addiction disorder amongst the students of Italy. The result of the study concluded that in Italy the use of the internet among students is dominant. However, an obvious difference among ages was not found, but males were more addicted to the internet as compared to females. But in our study, females were found more addicted to the internet as compared to males, but there was no significance relationship developed between these two variables ((Liaqat, R. M., Farooq, A., & Rehman, S. [2017](#)).

## **Conclusion**

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Therefore, after conducting this study, it was concluded that internet addiction is not only predominant in undergraduate students of our society but also has adverse effects, like emotional disturbances, mental disturbances, anxiety, eating and sleep pattern disorder it also affects work performance and school performance of individuals. According to the CHEN score, internet addiction is present among undergraduate students of our society and it's more common in females as compare to males.

It is recommended to conduct more in depth studies on the routine of the students that what are the factors that are leading to internet addiction. Also, it is suggested that to conduct an awareness program, so that students could know the possible



consequences that internet addiction can bring.

It is also suggested that more physical activities avenues must be available as part of school and college curricula which will

inculcate healthy habits in children and young adults. Once involved in sports and physical activities from their childhood, undergraduate students will find ways to remain active throughout their university studies.

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