

RELATIONSHIP BETWEEN INTERNET  
ADDICTION, SOCIAL INTERACTION ANXIETY  
AND LONELINESS AMONG UNIVERSITY  
STUDENTS



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July, 2023

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DEPARTMENT OF PSYCHOLOGY

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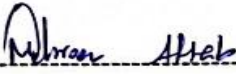
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## CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Relationship between Internet Addiction, Social Interaction Anxiety and Loneliness among University Students" carried out by Iqra Tariq, Reg. No. BSP193065 under the supervision of Ms. Mehreen Aftab, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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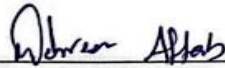
Relationship between Internet Addiction, Social Interaction Anxiety and Loneliness  
among University Students

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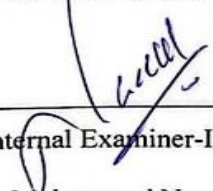
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## DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.

  
Iqra Tariq

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June 2023

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## ABSTRACT

The current research aimed to examine the relationship between internet addiction, social interaction anxiety and loneliness among university students. Pakistani youth are increasingly choosing loneliness over socialization and spending more time on the internet. One of the factors that contribute to social interaction anxiety and loneliness in university students is their internet addiction. Quantitative research method and convenient sampling technique was used to collect data from different universities of Rawalpindi & Islamabad. For this purpose, Chen Internet Addiction Scale (Chen, 2005), Social Interaction Anxiety Scale (Mattick & Clarke's, 1998) and UCLA Loneliness Scale (Daniel, 1996) were used. This study used correlational research design. The study focused on testing the research hypotheses on the sample of  $N = 320$  university students (169 female, 151 male) with the age ranging from 18 to 25 years. Data was analyzed through SPSS-21. Spearman's correlation was used to establish relationship among variables and Man Whitney U was used to explore gender differences. Alpha reliabilities for the measures were in good range. Correlation analysis showed significant positive relationship between internet addiction, social interaction anxiety and loneliness thus confirmed the hypotheses. Gender mean differences showed that males reported higher than females on internet addiction, social interaction anxiety and loneliness. Implications of the study and suggestions for the future research have also been discussed in detail.

**Key words:** Internet addiction, social interaction anxiety & loneliness.



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## Chapter 1

### Introduction

The internet has grown to become a fundamental part of our daily lives. One of the medias with the greatest global reach is the internet. It is now stated that Pakistani youth is among the nation's rising internet users. The young people who use the internet the most are referred to as the next generation. The use of smartphones and the internet has become an essential part of modern life and has increased worldwide over the past few decades (Saleem & Waseem, 2015).

The rapid development of computers and the internet has made them an essential part of the modern world and has significantly altered people work, study and lifestyle habits. As a global network, the Internet enables users to exchange information and connects millions of people worldwide (Musetti & Corsano, 2018). The rapid advancement of computer and internet technologies has made living, learning and working more convenient than ever before. However, certain hostile effects of this technology have started to emerge as just a result of the inappropriate, unfettered use of the internet by many people (Joseph & Varghese, 2021).

Excessive use of the internet can have harmful effects on development and learning, especially in young people whose cognitive abilities are still developing. The use of the internet is becoming an increasingly significant and nearly necessary part of everyday life for many people. This includes using the internet to accomplish academic goals like completing assignments, keeping in touch with friends and family on a regular basis, using social media to keep up with the latest news, watching movies and dramas (Ren & Yang,

2017). Students face social issues as a result of the internet, the most well-known is loneliness, caused by a lack of face-to-face interaction with other students and the development of nervousness. Students create specific environments for communicating together, such as online chatting, but in real setting they are unable to communicate confidently with each other in real life (Nithya & Jith, 2021).

### **Internet addiction**

Use of the internet that is frequently, uncontrolled, and hazardous is a sign of internet addiction. An excessive or poorly controlled obsession, urge, or behavior with the Internet that results in impairment or distress is a hallmark of internet addiction (Ko & Yen, 2012). Internet addiction is the failure to control one's use of the internet, it eventually results in problems with mental health, emotions interpersonal relationships and academic performance (Ghulami & Hamid, 2018). Excessive internet use leads to internet addiction which is explain as an inability to control using the internet despite severe consequences in many areas of life, including academic performance, social relationships, physical and mental health (Shen & Sun, 2016).

People with internet addiction spend more time online, when the internet is disconnected or unavailable, they become restless and irritable, although using the internet has negatively affected on relationships. When they stop using the internet for a certain amount of time, they feel distressed or down. Excessive internet use, family interactions have decreased, recreational activities diminished while more energy is invested on the internet and it adversely impacted mental and physical wellbeing (Chen, 2005).

Internet addiction is a behavioral addiction, the internet or other online devices as an adaptive way to deal with life's stresses and becomes dependent on them. Researchers



and clinicians in the field are paying attention to the rise in the internet use over the past 15 years and the general public has also paid more and more attention to the condition, which has coincided with an increase in computer (and internet) access (Javaeed & Ghauri, 2018).

There are advantages and disadvantages of using the internet, analyzing the positive changes in behavior and psychological states can help determine healthy internet use. There are numerous educational benefits to using the internet. For instance, students can enhance their studies by gaining access to the most recent online content and information, as well as by establishing international academic and educational connections (Anise & Joseph, 2017).

Engaging in excessive internet use often leaves individuals with limited time for other activities, leading to a notable imbalance in their daily routines. Moreover, the misuse of the internet frequently gives rise to adverse consequences and unfavorable outcomes. The quantity of time spent on the internet and the kinds of activities performed are what differentiate healthy internet use from unhealthy use. People frequently deviate from their true objectives when they spend an excessive amount of time online engaging in pointless pursuits (Ren & Yang, 2017).

The internet has greatly simplified life by making information more readily available to everyone and facilitating connections with a range of people worldwide. However, it has also caused many people to spend an excessive amount of time in front of laptops and computers, where it has become the center of their lives; this can cause to internet addiction (Li et al., 2016).

Despite the fact that the internet has allowed people all over the world to connect to the network in ways that were previously considered, this convenience carries with it the

possibility of addition, it can be too frequently use of the internet if it has become so habitual that it interferes with our work, everyday life and personal relationships (Sabzi & Hassanzaseh, 2018).

The user may develop physical and mental health issues such as depression, low family relationship and anxiety as a result of excessive internet use, which may result in little sleep, inability to eat for extended periods of time and limited physical activity. Poor relationships with family and peer, a lack of interest in daily life and neglect of domestic, professional and other responsibilities may result from excessive internet use, reducing the quality of life gradually. Social media encourages people to compare themselves to one another, which can be detrimental to mental health (Hassan & Alam, 2020).

It is evident that the internet is reshaping and developing many aspects of people lives by interacting into daily life, reaching an ever-increasing number of users. For instance, has an impact on many aspects of life, from carrying out routine activities like shopping or making payments to connecting with others through social media. The internet may give benefits and suitability to users, but extreme use can lead to some serious mischief and potentially mental aggravations. The more use of the internet has produced internet addiction to become a problem for some users (Chebbi & Rottman, 2020).

People communicate through social media apps, chat rooms, text messages or both. Young adults can't talk to each other in person because they don't talk to each other in real life. Many young adults rely solely on the internet for social interaction due to lack of communication skills. They eventually develop social interaction anxiety, which prevents them from interacting with others (Bukovza & Dorani, 2015).

The problem of internet addiction encompasses a wide range of online activities, including online games, pornography, social networking and online shopping. Excessive internet use has been linked to negative outcomes such as pathological gambling, poor academic performance, antisocial behavior, and troubled social relationships. The most significant issue for younger people is losing control over their internet use. However, prolonged internet use can disrupt family relationships and daily routines, cause weight loss, and affect an individual's emotional stability. Finally, internet use increases the risk of health issues (Weinstein & Dorani, 2014).

### **Social interaction anxiety**

People are afraid of a lot of social interactions, like talking to strangers and joining groups to make new friends. They do not interact with others and have poor communication skills. People use the internet and are connected to a virtual world; however, its negative effects include cutting off from real relationships and develop social interaction anxiety (Javad & Afsaneh, 2017).

People gauge the emotional aspects of their anxiety response in relation to their fear of interacting in social settings, but they do not generally refer to social apprehension or concern about the opinions of others. People avoid meeting others and attending social events, because they spend more time on the internet. As a result, they experience anxiety when engaging in these activities (Fioravanti & De`ttore, 2016).

Excessive use of the internet among young adults has been found to have a negative impact on their level of social interaction and engagement in offline social activities. Young adults today are increasingly spending more time on computers, mobile phones and social

platforms, which can limit their opportunities for face-to-face social interactions and reduce their overall social engagement (Chen & Wang, 2020).

Social interaction anxiety occurs when a person experiences distress while interacting with other people. When speaking with someone in a position of authority, such as a boss or teacher, people become anxious. They have trouble making eye contact with other people. They avoid social gatherings and new friendships. A subset of social interaction anxiety, social phobia is characterized by performance anxiety and a fear of being observed or observed by others, particular when the individual experience distress while engaged in particular activities with others (Mattick, 1998).

The prevalence of smartphones and the widespread access to their internet have made it easier for young adults to stay connected virtually. However, the constant availability of online activities and digital distractions can lead to a decrease in offline social interactions. Instead of engaging in direct social interactions, young adults may find themselves immersed in the virtual world, spending hours browsing social media feeds, playing online games or consuming digital content (Odaci & Ckrikci, 2015).

The excessive reliance on internet use can have several implications for young adults' social lives. First, it can lead to a decrease in the quantity and quality of face-to-face social interactions. Spending more time online means less time available for in-person interactions with friends, family and peers. As a result, young adults may miss out on valuable opportunities for building and maintaining meaningful relationships as well as the emotional support and social connections that come with those interactions (Ryan & Xenos, 2011).

Furthermore, excessive internet use may also hinder the development of important social skills and self-confidence needed for successful offline social interactions. Engaging in face-to-face conversations, participating in group activities and navigating social situations in the real world are crucial for the development of effective communication skills, empathy and social competence. By prioritizing online interactions over offline interactions over, young adults may miss out on the chance to practice and refine these skills, potentially leading to difficulties in forming and maintaining relationships offline (Kim & Peng, 2009).

### **Loneliness**

Loneliness considered as social isolation is a significant factor in the onset of mental and physical health issues, loneliness is especially prevalent among students. A psychologically uncomfortable situation can result from a mismatch between an individual's existing social relationships and what they consider to be ideal. The people who see themselves as desolate may not be guaranteed to need social connections, but instead, they might think their relationships are bad or not good enough (Cacioppo & Hawkley, 2015).

An unpleasant emotional response to perceived isolation is loneliness. It is frequently connected with an apparent absence of association and closeness. Loneliness is a subjective, unwelcome feeling of a lack of companionship or a loss of companionship.

Numerous solo activities make people unhappy; they feel as though no one truly them. Because they don't have any real relationships, they don't share their interests and ideas with the people around them. People have trouble connecting with others and communicating with them, and they also have trouble making friends (Russell, 1996).

Anxiety, resentment, sadness and other emotions almost always go along with loneliness, which is described as an unwanted and unpleasant experience. Despite the fact that it is generally more serious in teenagers and youth adult, it might exist in any time of life. Most of the time lonely people stay away from time situations, personal and public responsibilities, relationships, and social interaction (Ummet & Eksi, 2016).

Numerous individuals struggle with face-to-face communication and are addicted to the internet. Due to their lack of experience, they are afraid they won't know what to say in real life. The majority people have few real friendships. The internet is the solution for them if they wanted to learn something or talk to someone far away. As a result, young adults do not require face-to-face communication as much as previous generations did (Lau et al., 2017).

Excessive time spend online can have significant consequences for individuals' social interaction and may contribute to the development or worsening of social anxiety. When individuals spend an excessive amount of time online, engaging in activities such as social media, gaming, or browsing the internet, it can replace face-to-face interactions in their lives. This substitution limits the opportunities for meaningful social connections that are crucial for fostering interpersonal relationships and a sense of belonging (Twenge & Martin, 2018).

The virtual nature of online interactions may also hinder the development of important social skills and self-confidence needed for offline social interaction, leading to further social anxiety and feelings of loneliness. This reliance on virtual interactions may result in decreased engagement in offline social activities, reduced social support and increased feelings of loneliness (Kraut et al., 1998).

Moreover, the allure of the internet and social media platforms can create a false sense of connection, leading individuals to rely on virtual interactions rather than seeking out real-world social experiences. The availability of online platforms that facilitate communication and social interaction may give individuals the perception that they are connected to others and have a vast network of friends or acquaintances, this sense of connection may be illusory and lacking in the depth and quality found in face-to-face interactions (Valkenburg & Peter, 2009).

### **Literature review**

A lot of work has been done on immoderate internet use and its effects on mental health and psychological. Existing literature shows crucial relationship between social anxiety and loneliness with internet addiction (Nithya & Jith, 2021). Furthermore, another study suggested people with low self-esteem are at more risk of internet addiction that was found a significant relationship between internet addiction and perceived social support (Naseri & Jalal, 2015). Moreover, a study suggested that uncontrolled internet use is linked to feelings of loneliness and a decrease in social interactions in real life (Javad & Afsaneh, 2017; Hossein & Farzad, 2021). Internet addiction was found to be a significant health issue among middle and high school students. The study suggests that positive correlation between internet addiction and loneliness (Koyuncu & Unsal, 2014).

In addition to that Emriye and Mehmet (2018) that found young people who are addicted to smartphones and the Internet experience high levels of loneliness and poor social relationships. A study suggests that 20% and 40% of Indian university students are at risk of internet addiction (Joseph & Varghese, 2021).

A study conducted by Ghulami and Hamid (2018) included 976 participants who found significant correlation between internet addiction and academic performance. While there are significant differences between internet addictions in terms of demographic characteristics. According to study, conducted by Darcin and Noyan (2016), young people who primarily use their smartphones to access social networking sites are significantly more likely to develop smartphone addiction than their peers who primarily use their smartphones to surf the Internet or phone calls. Ren and Yan (2017) conducted a study on rural middle school students who found that there is a correlation between the amount of time their parents spent at home and whether one or both their parents moved for work. Positive correlations can be found among internet addiction, social anxiety and loneliness.

According to research, there is positive association between internet addiction and social anxiety in two samples of 120 general population of the university students. (Weinstein & Dorani, 2014). Sabzi and Hassanzaseh (2018) conducted a study in Iran where 20% of the population expressed higher than average feelings of loneliness due to internet addiction. A study that found positive correlation between loneliness and internet addiction in adolescents.

According to previous studies, the global prevalence of Internet addiction is 6.0% in the 12-41 age group, which found a high prevalence of internet addiction among Chinese adolescent internet users and highlighted the importance of interpersonal and school stressors as risk factors for internet addiction, primarily mediated by negative coping style (Tang & Zhang, 2014). According to Hassan and Alam (2020) 27.1% of people in Bangladesh were addicted to the internet as a whole. The 19-24 age subgroup has an addicted rate of 28.6%, while the 25-35 age group was 23.5%. Young adults in Bangladesh



are significantly more likely than young adults worldwide to engage in excessive internet use. A number of determinants have the potential to indicate a highly alarming.

A study suggested that there is high positive correlation between loneliness and internet addiction, students who are addicted to the internet have significantly higher levels of loneliness (Karapetsas & Fotis, 2015). Another study suggested the importance of interpersonal and academic stressors as a risk factor for internet addiction, which is primarily mediated through negative coping styles, showing a high prevalence of internet addiction among Chinese adult internet users (Tang & Wang, 2016).

According to review article, a study conducted in turkey on 319 respondents found a positive relationship between internet addictions, social appearance anxiety, and coping with stress (Baltaci & Yilmaz, 2021). According to Bonzoglan & Veysel (2013), the study suggested that loneliness, self-esteem, and life satisfaction explained 30% of the total variance of internet addiction.

According to Dung and Kyesun (2020) 25.5% of the students who have internet addiction, positive correlation with internet addiction included internet use, academic performance, loneliness and stress. A study found a positive correlation between internet addiction and loneliness.

According to Qualter et al. (2015) explored the longitudinal relationship between social anxiety, loneliness, and depressive symptoms among university students. The findings indicated that higher levels of social anxiety predicted greater loneliness over time. Similarly, Beidal and Turner (2009) investigated the relationship between social anxiety and social support in young adults and found that individuals with higher social anxiety reported

lower levels of perceived social support, which contributed to increased feelings of loneliness.

Furthermore, the study suggested that the relationship between social anxiety and loneliness was examined in a sample of university students. The results revealed that social anxiety was positively correlated with loneliness, suggested that students with higher levels of social anxiety were more likely to experience feelings of loneliness (Weeks et al. (2007). Additional research by Alden and Taylor (2004) focused on the role of social anxiety in loneliness among university students. The study found that social anxiety significantly predicted loneliness, even after controlling for other potential confounding factors such as depression and general anxiety.

A study conducted by Rigelsky and Megyesiova (2020) on a sample of 400 participants reported that male is 50% more likely than females to be addicted to the internet. In addition, another study conducted by a Spanish university found that men are more addicted to social media than women (Martinez & Rubio, 2020). A cross-sectional study of 285 university students in central Taiwan found that men were more likely to become addicted to the internet than women if they had a lot of money, a bad family, parents who did not set a limit on how much time they spend online, high rates of depression, low self-efficacy, and low self-esteem (Chen & Wang, 2020). A study by Hung & Shing (2009) indicated a significant gender difference in the relationship between internet addiction and frustration intolerance, which found that males are higher internet addiction and frustration intolerance than female. Fergus and Valentiner (2010) investigated social interaction anxiety and found that males exhibited higher levels of social anxiety symptoms compared to females. The study also revealed that males were more likely to experience performance-

related social fears. Another study examined gender differences in loneliness among university students. The findings indicated that males reported higher levels of loneliness compared to females. The study also suggested that societal expectations related to masculinity, such as self-reliance and emotional suppression, could contribute to these gender differences in loneliness (Russell & Pines, 1997).

The limited work done in Pakistan regarding social anxiety, loneliness, and internet addiction also states the fact that Pakistani students are also addicted to the internet (Saleem & Waseem, 2015). A Study suggested that Social Media Networking Sites Usage, loneliness, social anxiety, and depression are significantly correlated with social media's impact on mental health (Iqbal & Asghar, 2022). A study conducted by Khan and Adan (2021) included 384 respondents from three well-known public universities in Southern Punjab found that there is a positive and significant relationship between social media and depression, while there is only a weak and significant relationship between social media and loneliness.

### **Theoretical framework**

Uses and Gratification theory (U&G) looks at how people spend their time on social media to fulfill their needs and goals (Elihu, 1959). According to this theory, people are active media users who are motivated to choose media to satisfy their needs. Various patterns of media consumption and gratification have been influenced by social and psychological factors. If people use excessive amount of the internet and they find social utility (audience motivation) in social media then they have less face-to-face interaction in daily and have a bad peer relationship in real life. The person may refuse to leave the

internet due to the complete focus and gratification it provides, eventually leading to internet addiction (consequences).

People spend more time on the internet to achieve their goals and needs therefore have less interactions in real life. People start sharing and communicate with each other within the internet world and start looking for social support on the internet, it can lead them to become addicted to the internet. People use different platforms like Facebook, Instagram, and others to fulfill their needs and satisfaction among them. People don't spend enough time with family, peers and make friends online rather than in real setting. As a result, people don't have any real relationships in real life, and they suffer with social interaction anxiety and loneliness (Singh & khess, 2020).

People feel lonely because they don't interact confidently with others. They face difficulty during interaction in social setting. Internet addicts have significant relationship issues, such as with family and friends they have social interaction anxiety and loneliness which cause less interaction with others. Individuals with internet addiction less interaction with peer and have incompetent relationship quality. People who are addicted to internet, have a poor relationship, have difficulty forming friendship and have lower social skills and inadequate relationship. These people soon become socially isolated (File & Hyde, 1978).

### **Rationale of the Study**

The purpose of the study was to identify the relationship between internet addiction, social interaction anxiety and loneliness among university students. Today, the internet has become one of the important aspects of human life. Most of the interaction and communication is carried out through the medium of the internet. People have become

dependent on the internet for day-to-day tasks and young population is more dependent on internet. They give preference to the internet and social media as a tool to communicate with others. Excessive use of the internet is linked with psychological problems and mental health issues. Internet addiction is a new type of mental disorder that occurs when excessive internet use interferes with daily life. Therefore, internet addiction is a problem of particular concern for modern society. The fact that teenagers have not yet develop critical thinking puts them at high risk of internet addiction. In addition, internet addiction is causing many psychological problems for young people and their families (Darcin & Noyan, 2016).

Internet addicts will have serious relationship problems, including family and friendship problems. As a result, people with this type of problem reluctant to interact with others in the immediate world to avoid communication anxiety (Mahmood and Adan, 2021).

Individuals experiencing interpersonal deficits in real life may take greater emotional risks in fictional worlds, associated with the internet's dynamic social support network associated with deprivation. Internet addiction is a relatively dangerous condition that can damage health, destroy relationships, cause uncontrollable obsessions and reduce overall productivity (Weinstein & Dorani, 2014). Pakistani youth are increasingly choosing loneliness over socialization and spending more time on the internet. One of the factors that contribute to social interaction anxiety and loneliness in university students is their internet addiction (Saleem & Waseem, 2015). Fewer studies have been done in Pakistan in this regard. Therefore, it is important to investigate this phenomenon in Pakistani context.

## **Objectives**

Research study will be aimed to access the following objectives:

1. To examine the relationship between internet addiction, social interaction anxiety and loneliness among university students.
2. To investigate the gender difference in internet addiction, social interaction anxiety and loneliness.

## **Hypotheses**

**H1:** There is positive significant relationship between internet addiction and social interaction anxiety.

**H2:** There is positive significant relationship between internet addiction and loneliness.

**H3:** There is positive significant relationship between social interaction anxiety and loneliness.

**H4:** Male is expected to have a higher internet addiction, social interaction anxiety and loneliness as compared to female.

## Chapter 2

### Method

#### Research design

The research design of this study was “Correlational Research design”. It was quantitative study that aims to find the relationship between variables.

#### Population and Sample

A total of  $N = 320$  students from different universities of Rawalpindi & Islamabad, age range from 18 to 24 young adults, both male and female students were selected to be the sample of study. Previous studies shows that researchers had used a sample size of 319, 210,384 in their studies to measure the Correlation. Therefore, in this study also a sample size of 320 was used (Baltaci & Yilmaz, 2021, Mahmood and Adan, 2021, Ghauri & Javaeed, 2019). To confirm the accuracy of the sample size, it was also calculated through G power. The results showed that a minimum of  $N = 320$  sample was accurate to conduct the study. Previous studies were on young adults (Bukovza & Dorani, 2015; Ummeet & Eksi, 2016; Tang, J., & Wang, J., 2016). A convenient sampling technique was used due to suitable accessibility and proximity to determine relationship between internet addiction, social interaction anxiety and loneliness among university students.

#### *Inclusion criteria*

Only university students were included to participate in the study. Participants who can understand the English. Participants having an age range 18 to 25 were included.

#### *Exclusion criteria*

Students of schools and colleges were excluded in the study. Participants those who were physically disable were excluded from the study.

## **Instruments**

Following scales that were used for data collection:

### **Demographic sheet**

Demographic form was prepared for measuring the influencing demographic variables and information regarding age, gender, and marital status, level of education, university name, birth order, family structure, spending hours on the internet and family income.

### ***Chen internet addiction scale (CIAS)***

This scale was developed by Chen, (2005). The scale has a 4-point Likert scale with 26-item, this is a self-reported scales that measures five dimensions of internet related symptoms and problems, including a scale for compulsive use symptoms, withdrawal symptoms, interpersonal tolerance symptoms, and time management problems. Total Chen internet addiction scale scores range from 26 to 84. The 26 items in the tool are measured using four standard responses: 1 (does not match my2 (probably does not match my experience) and 3 (probably matches my experience), 4 (corresponding to my experience). A higher Chen internet addiction scale score indicated a higher reliance on internet activity. The internal reliability of the scales and subscales from 0.79 to 0.39 in the original study, whereas in the pilot study the reliability of the scales and subscales was 0.76.

### ***Social interaction anxiety scale (SIAS)***

This scale was developed by Mattick & Clarke's (1998). This scale has a 5-point Likert scale with 20 items, this is a self-reported scale that measures stress when meeting and talking to other people. Participants rated each item as 0 (not at all characteristics), 1 (slightly characteristic of me), 2 (moderately characteristic of me), 3 (very characteristic of



me), and 4 (extremely characteristic of me). Sample item includes, “I don’t know what to say in a social setting” or “I get nervous when I behave in a group”. Possible scores range from 0 to 80. The high score will have higher society anxiety. The authors of the measurements (Peters, 200) defined a cutoff score of 36. In other words, a score of 36 or higher suggests a possible diagnosis of social anxiety disorder. The reliability of the scale is 0.88.

### ***UCLA Loneliness scale***

This scale was developed by Daniel, (1996). This scale 4-point Likert scale with 20 items, with 1=strongly disagree and 4=strongly agree. This is a self-reported scale that measures an individual’s subjective feelings about loneliness and social isolation; it is used by youth and adults. The scale ranges from 20 to 80, with scores below 50 considered low level of loneliness, scores 59 to 60 moderate loneliness and scores above 60 high level of loneliness. Participants rated each item as O (I often feel this way), S (I sometimes feel this way), R (I rarely feel this way), N (I never feel this way) and make all O = 3, S = 2, R = 1, and N = 0. The measurements have been revised twice since they were first published. Once create to reverse scored items and once to simplify the wording. The UCLA loneliness scale has good, reported efficacy and reliability (coefficient  $\alpha = 0.92$ ). After conducting a pilot study of the translated UCLA loneliness scale, the reliability of the Cronbach alpha coefficient was 0.797.

### **Procedure**

Data was collected from private and public sector universities of Rawalpindi & Islamabad. Permission from the respected authorities was taken for the purpose of data collection. The objectives of the study were explained. Questionnaires used for data

collection were; Chen internet addiction scale (CIAS), social interaction anxiety scale (SIAS) and Loneliness scale (UCLA). Data was collected from the students in their class. Participants were given informed consent to ensure the voluntary participation in the study. Demographic sheet was also given to all the participants. Once they were guided about the study, the questionnaire set was distributed among them. Participants were assured of confidentiality after completing the questionnaires and given the researcher's email address in case they have any questions about the study. It takes 15-20 minutes to fill the questionnaires. The participant's names and identities were remained anonymous.

### **Ethical consideration**

Permission to use the instruments obtained through email conversation with different authors. The consent formed was used to get the consent of the participants and to let them know about the purpose of the research study and how their information will be used. Students were not forced to participate in the study rather voluntary participation was ensured. The data gathered for the purpose of research was kept confidential. Confidentiality was ensured by anonymizing the information obtained from data collection. Participants were given right to ask any question related to study or if they have any confusion related to questionnaire. Right to withdraw from participation was given to the students.

## Chapter 3

### Results

Since the purpose of the study was to find the relationship between internet addiction, social interaction anxiety and loneliness. Appropriate statistical analyses were used to analyze the data through SPSS-21. The internal consistency of the scale was determined through Cronbach's alpha reliability. Spearman's Product Moment Correlation was used to establish relationship among variables and Mann-Whitney U test was used to explore gender differences.

#### Demographics characteristics

The data was collected from  $N = 320$  participants following are the demographic characteristics of the sample used in the study.

**Table 1***Sociodemographic Characteristics of Sample (N=320)*

Characteristics	<i>n</i>	%
<b>Age</b>		
18-25	320	100.0
<b>Gender</b>		
Male	151	47.2
Female	169	52.8
<b>Education</b>		
Undergraduates	318	99.6
Graduates	2	.6
<b>Marital status</b>		
Single	292	91.3
Married	18	5.6
In a relationship	10	3.1
<b>Birth order</b>		
First order	101	31.6
Middle order	131	40.9
Youngest	76	23.8
Only	12	3.8
<b>Family Structure</b>		
Nuclear	218	68.1
Joint	102	31.9
<b>Doing job</b>		
Yes	96	30.0
No	224	70.0
<b>Internet availability</b>		
Yes	283	88.4
No	37	11.6

Characteristics	<i>n</i>	%
<b>Living</b>		
With family	260	81.3
Hostel	60	18.5
<b>Time spends per day (on internet)</b>		
1-3 hours	45	14.1
3-6 hours	97	30.3
More than 6	177	55.6
<b>Family income</b>		
Below 35,000	23	6.3
35,000-75,000	74	23.1
75,000-100,000	95	29.7
Above 100,000	128	39.4

*Note. n = Total no. of items, % = Percentage of sample.*

Table 1 indicates that the sample consisted of  $N = 320$  participants, all of whom were between the ages ( $n = 18-25$ , 100.0%). Result shows that female participants were high in frequency ( $n = 169$ , 52.8%) in the study. In terms of education most of the participants were undergraduates ( $n = 318$ , 99.6%). Table shows that single participants were high in frequency ( $n = 292$ , 91.3%) as compared to married participants ( $n = 28$ , 8.7%). According to the table, the result shows that middle order of participants were high in frequency ( $n = 131$ , 40.9%) compared to others. Majority of the participants belonged to nuclear family system ( $n = 218$ , 68.1%). Majority of the participants in the study were not working ( $n = 224$ , 70.0%). Result also shows that greater number of participants had internet availability ( $n = 283$ , 88.4%). In addition to that mostly participants were living with their family ( $n = 260$ , 81.3%). In this table, result shows that those who spend more than 6 hours on internet

were higher in number ( $n = 177, 55.6\%$ ) compared to others. Finally, the table also provides information on family income, indicating that the participants with a family income above 100,000 were higher in number ( $n = 128, 39.4\%$ ) than others included in the sample.

### Reliability and Descriptive Statistics

Cronbach's alpha reliability coefficients were computed for all scale used in present study. Various statistical analyses were applied to check the general trend of data including mean, standard deviation, actual and potential range of scores, skewness, kurtosis, Kolmogorov-Smirnov normality test and significance level etc.

**Table 2**

*Psychometric Properties of Scales used in the current study (N=320)*

Scale	N	a	M	SD	Range		Skew	Kurt	K-S	p
					Potential	Actual				
IA	26	.89	63.38	13.24	26-104	27-102	-.21	.16	.08	.00
SIA	20	.87	33.81	13.02	0-80	3-73	.03	.05	.05	.03
LN	20	.88	37.49	9.66	0-60	4-56	-.62	1.08	.07	.00

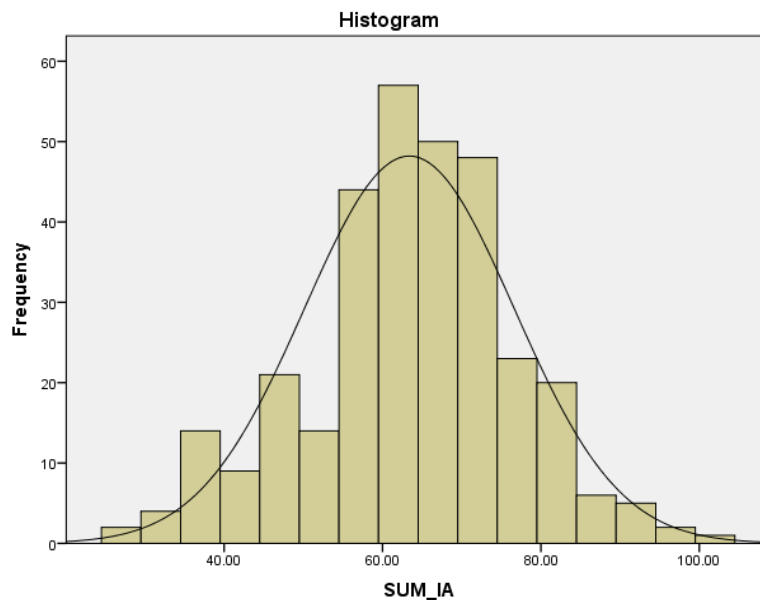
*Note. N = Items, a = Cronbach's alpha value, M = Mean, SD = Standard Deviation, K-S = Kolmogorov-Smirnov normality test, p = Significant level, IA= Internet Addiction, SIA= Social Interaction Anxiety, LN= Loneliness.*

Table 2 shows the psychometric properties of the scales used in the present study. The Chen internet addiction scale (CIAS) had 26 items with mean score of 63.38 ( $SD = 13.24$ ), the scale demonstrated good internal consistency, with a Cronbach's alpha of .89. The social interaction anxiety scale (SIAS) had 20 items with mean score of 33.81 ( $SD =$

13.02), the scale also demonstrated good internal consistency, with a Cronbach's alpha of .87. Finally, the UCLA loneliness scale had 20 items with mean score of 37.81 ( $SD = 9.66$ ). The loneliness scale demonstrated good internal consistency, with a Cronbach's alpha of .88. The Kolmogorov-Smirnov test for internet addiction, social interaction anxiety and loneliness shows that data was not normally distributed, hence non-parametric tests was used to assess correlations and gender differences in these variables. The graphical representation of distribution of scores on each scale is provided below.

**Figure 1**

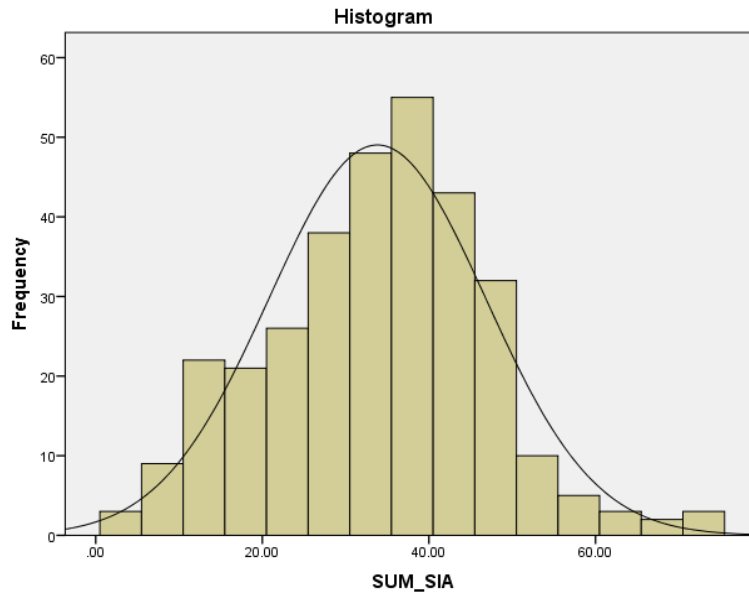
*Distribution of Internet Addiction scores*



In figure 1, the distribution of scores was negatively skewed (-.12) indicating that the tail of the distribution was longer on the left side, and the kurtosis value of (.16) indicated that the peak was slightly leptokurtic and fatter tail than a normal distribution, it was slightly more peaked than normal distribution.

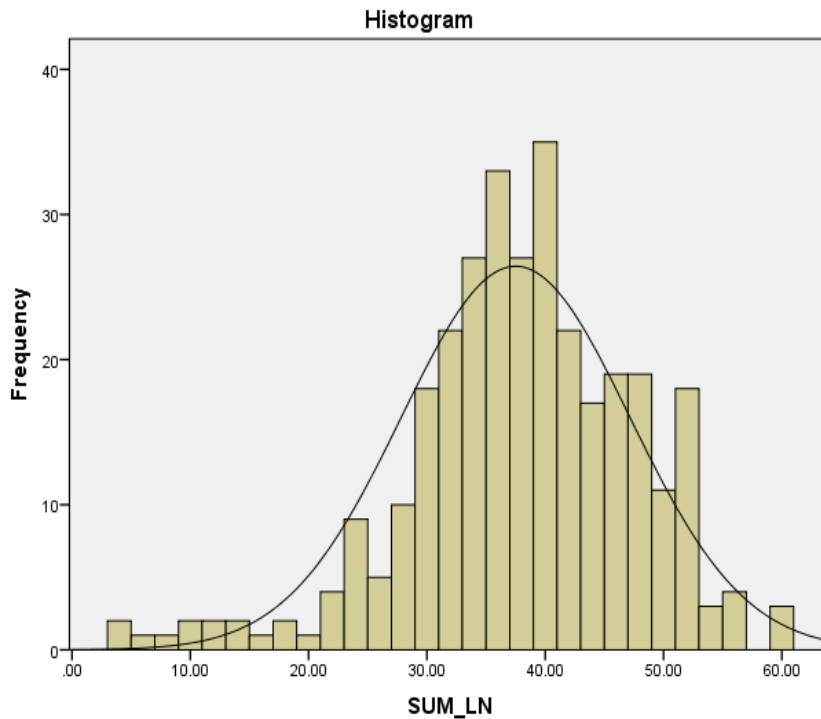
**Figure 2**

*Distribution of Social Interaction Anxiety scores*



In figure 2, the distribution of scores was positively skewed (.02) indicating that the tail of the distribution was longer on the right side, the value of .02 suggests a very small degree of skewness and the kurtosis value of (.05) indicated that the distribution was slightly more peaked and had slightly heavier tails compared to the normal distribution.



**Figure 3***Distribution of Loneliness scores*

In figure 3, the distribution of scores was negatively skewed (-.62) indicating that the tail of the distribution was longer on the left side and the kurtosis value (1.08) indicated that peak was higher and fatter tail than a normal distribution, it was slightly more peaked than normal distribution. This showed that the peak was slightly leptokurtic.

### **Correlation between Study Variables**

To study the relationship between internet addiction, social interaction anxiety and loneliness. Spearman's Product Moment Correlation was computed (Table 3).

**Table 3***Correlation for study variables (N=320)*

Variables	1	2	3
1. Internet Addiction	-		
2. Social Interaction Anxiety	.30**	-	
3. Loneliness	.41**	.17**	-

*Note. N = total no. of participants, M = Mean, SD = Standard Deviation.*

\*\* $p < .01$ .

Table 3 shows that there was a statistically positive correlation between internet addiction and social interaction anxiety ( $r = .30, p < .01$ ), indicating that higher levels of internet addiction were associated with higher levels of social interaction anxiety. Thus Hypothesis 1 had been accepted. There was also statistically significant positive correlation between internet addiction and loneliness ( $r = .41, p < .01$ ), indicating that higher levels of internet addiction were associated with higher level of loneliness, hence Hypothesis 2 had also been accepted. Additionally, there was a statistically significant positive correlation between social interaction anxiety and loneliness ( $r = .17, p < .01$ ), indicating that higher levels of social interaction anxiety were associated with higher levels of loneliness, hence Hypothesis 3 had been accepted.

## Differences based on Gender on Study Variables

**Table 4**

*Gender Differences for study variables (N = 320)*

	Male		Female		<i>U</i>	<i>z</i>	<i>r</i>	<i>p</i>
	(n = 151)		(n = 169)					
	<i>M</i>	<i>Md</i>	<i>M</i>	<i>Md</i>				
IA	180.48	67	142.65	62	9742.50	-3.65	-.40	.00
SIA	165.96	35	155.62	34	11935.50	-3.19	-.34	.03
LN	178.49	39	144.43	36	10043.00	-3.29	-.36	.01

*Note.* *M* = Mean, *Md* = Median, *U* = Mann-Whitney, *z* = *z* score, *r* = effect size, *p* = significance level, IA = Internet Addiction, SIA = Social Interaction Anxiety, LN = Loneliness.

Table 4 shows that male participants had a significantly higher mean and median ( $M = 180.48$ ,  $Md = 67.00$ ), internet addiction score compared to female participants, who had a lower mean and median ( $M = 142.65$ ,  $Md = 62.00$ ), internet addiction score. In social interaction anxiety showed that male participants had a significantly higher mean and median ( $M = 165.96$ ,  $Md = 35.00$ ) as compared to female participants, who had a lower mean and median ( $M = 155.62$ ,  $Md = 34.00$ ), social interaction anxiety score. In loneliness showed that male participants had a significantly higher mean and median ( $M = 178.49$ ,  $Md = 39.00$ ) as compared to female participants, who had a lower mean and median ( $M = 144.43$ ,  $Md = 36.00$ ), loneliness score. The Mann-Whitney U test showed a statistically significant difference between two groups in internet addiction ( $U = 9742.50$ ,  $p < .00$ ), social interaction anxiety ( $U = 11935.50$ ,  $p < .03$ ), and loneliness ( $U = 10043.00$ ,  $p < .01$ ), scores between male and female participants was reliable and meaningful. Additionally, the

correlation coefficient in internet addiction ( $r = -.40$ ), social interaction anxiety ( $r = -.34$ ) and loneliness ( $r = -.36$ ) suggests a moderate effect size, indicating that male gender is associated with higher internet addiction, social interaction anxiety and loneliness scores.

## Chapter 4

### Discussion

The main objective of the present study was to examine the relationship between internet addiction, social interaction anxiety and loneliness among university students. Another objective of the present study was to investigate the gender difference in the internet addiction. In the present study internet addiction was measured by using Chen internet addiction scale: Measure of internet addiction originally developed by Chen (2005). Social interaction anxiety was measured by social interaction anxiety scale developed by Mattick & Clarke's (1998). Loneliness was measured by UCLA loneliness scale developed by Daniel, (1996). The present study aimed to bridge the gap in existing literature as much as possible. The main study ( $N = 320$ ), frequencies and percentages for demographic variables for the whole sample was obtained to better understand the sample characteristics (Table 1).

In alpha reliabilities and descriptive statistics of the instruments used showed that these measures were reliable to use (Table 2), mean, standard deviation, range of the scores, skewness and kurtosis and potential scores of scales were computed and tabulated. Cronbach's reliability for each scale was computed by using the SPSS software. The reliabilities of all the scales and subscales used were appeared between the ranges of .87 to .89 which were good and acceptable. The Kolmogorov-Smirnov test for internet addiction, social interaction anxiety and loneliness shows that data is not normally distributed, hence non-parametric tests are used to assess correlations and gender differences in these variables.

Regarding hypothesis testing, the hypothesis no. 1 i.e, internet addiction will be positively correlated with social interaction anxiety among university students has been

supported by the result of the study (Table 3). Results of the present study are consistent with the previous literature (Joseph & Varghese, 2021; Javad & Afsaneh, 2017; Ren and Yan, 2017; Weinstein & Dorani, 2014; Baltaci & Yilmaz, 2021; Iqbal & Asghar, 2022) that students who have more internet addiction they have high level of social interaction anxiety. Excessive internet use has been found to contribute to social interaction anxiety, as individuals tend to spend more time on the internet rather than engaging in face-to-face interactions. Keeping in earlier findings, this study shows the negative impact of excessive internet use on individuals social well-being. Therefore, it is crucial to strike a balance in internet usage and moderate its consumption (Javad & Afsaneh, 2017).

Hypothesis no. 2 of this study stated that internet addiction will be positively correlated with loneliness among university students. The results in (Table 3) shows that internet addiction positively correlated with loneliness. Hossein & Farzad (2021) suggests that uncontrolled internet use is linked to feelings of loneliness, positive correlation between internet addiction and loneliness (Koyuncu & Unsal, 2014; Sabzi & Hassanzaseh, 2018; Karapetsas & Fotis, 2015; Dung & Kyesun, 2020; Khan & Adan, 2021) young people who are addicted to smartphones and the Internet experience high levels of loneliness (Emriye & Mehmet, 2018). To sum up, the results indicated extensive and unregulated internet usage has the potential to increase feelings of isolation. Overall, these findings suggest that excessive and uncontrolled internet use can contribute to feelings of loneliness among university students who engage in excessive online activities without proper boundaries, it can negatively impact their social connections and overall sense of belonging. This suggests that over-reliance on the internet as a primary source of interaction and communication may lead to a heightened sense of loneliness (Dung & Kyesun, 2020).

Hypothesis no. 3 proposed that social interaction anxiety will be positively correlated with loneliness among university students. The findings (see Table 3) shows that social interaction anxiety is positively correlated with loneliness among university students. Previous literature suggests that student's higher levels of social anxiety were more likely to experience feelings of loneliness (Qualter et al., 2015; Nithya & Jith, 2021; Beidal & Turner, 2019; Weeks et al., 2017; Alden & Taylor, 2014). So, it can be seen that the results of the present research are in accordance with the hypothesis and with the previous research findings. Individuals with social interaction anxiety often experience intense fear or discomfort in social situations, leading them to avoid or withdraw from social interactions. Overall, social interaction anxiety acts as a barrier to fulfilling social connects and can contribute to the development and persistence of loneliness (Qualter et al., 2015).

Hypothesis no. 4 stated that male participants will score high on internet addiction, social interaction anxiety and loneliness than female participants. To test this hypothesis, mean differences were computed on the basis of gender and the results showed that males reported higher on internet addiction, social interaction anxiety and loneliness than female (see Table 4). Past researches also give evidence that male gender is more likely to indulge in internet addiction, social interaction anxiety and loneliness (Rigelsky & Megyesiova, 2020; Martinez & Rubio, 2020; Chen & Wang, 2020; Hung & Shing, 2009; Fergus & Valentiner, 2010; Russell & Pinosof, 1997). It proves the study hypothesis and the results are in alliance with past research by (Hung & Shing ,2009; Fergus & Valentiner, 2010; Russell & Pinosof, 1997). Traditionally, males have been more encouraged to engage in technology-related activities, including internet usage, which can contribute to higher levels of addiction (Griffiths, 2000). Additionally, gender roles and expectations may influence the types of

online activities individual participate in, with males more likely to engage in highly immersive and addictive activities such as gaming (Andreassen & Pallesen, 2017; Kuss & Griffiths, 2011). Secondly, psychological factors may also contribute to this disparity. Research suggests that males may be more prone to sensation-seeking behavior, which can lead to a greater attraction to the novelty and excitement provided by the internet (Kuss & Griffiths, 2011). Research suggests that males and females may adopt different coping strategies in response to stress and loneliness. Females tends to seek social support and engage in more face-to-face interactions, which may provide a protective factor against loneliness. In contrast, males might be more inclined to engage in solitary activities or turn to the internet as a means of coping (Holt & Smith, 2010), which could contribute to higher scores on measure of internet addiction, social interaction anxiety and loneliness.

### **Conclusion**

The findings of the present study support the hypotheses and align with previous research. The results indicate that internet addiction positively predicts social interaction anxiety and loneliness among university students. Excessive and uncontrolled internet use has a negative impact on individuals social well-being, emphasizing the importance of interventions targeting internet addiction and its effects on social interaction anxiety and loneliness. Additionally, the study confirms that male participants score higher on internet addiction, social interaction anxiety and loneliness as compared to female participants, which is consistent with the past research. The gender difference may be influenced by societal norms, technological engagement patterns and psychological factors. Overall, the study highlights the need for promoting healthy internet use and addressing the potential



negative consequences on social connections and overall sense of belonging among university students.

### **Limitations and Suggestions**

The present study highlighted the effect of internet addiction, social interaction anxiety and loneliness among university students. However, there are certain limitations which should be considered while interpreting its results and contributions.

- The data for this study was collected from Rawalpindi & Islamabad universities only. Future research should aim to include a more diverse range of universities and locations to enhance the external validity of the study.
- The sample of the study was relatively small and was not representative of the whole population. For the future research sample size should be increased for better results.
- As a data was collected through self-report participants may have been influenced by social desirability bias, where they provided responses that they believed were socially acceptable or desirable. This bias could affect the accuracy and reliability of the data collected. Social desirability scales can be used to check whether the responses were desirable or not.
- This research was specially conducted within an educational setting, focusing on university students. It is important to acknowledge that these findings may not necessarily apply to individuals in other age groups or settings. Future studies could explore different age groups, such as adolescents or working professionals, to gain a more comprehensive understanding of the phenomenon.

- Some participants may have responded to the questionnaire without giving sufficient thought or attention to their answers, leading to accurate or unreliable data. Future research could implement measures to ensure participants understand the importance of providing thoughtful and accurate responses, such as clear instructions or reminders during data collection.

### **Implications of the Present Study**

The findings of this study suggest the need for the development and implementation of awareness programs aimed at addressing the consequences of excessive internet use. These programs can educate individuals about the potential risks associated with internet addiction and provide strategies for reducing its negative impact on social interaction and loneliness.

Parental awareness regarding related to excessive internet use. Parents should be informed about the behaviors associated with internet addiction and be equipped to address these issues with their children. Providing resources and guidance to parents can help them effectively support their children in managing their internet use and maintaining healthy interpersonal relationships.

Awareness seminar targeting individuals who have developed an addiction to the internet. These seminars can provide information about negative consequences of excessive internet use, emphasize the importance of interpersonal relationships and offer strategies for reducing internet addiction and loneliness. By raising awareness among affected individuals, such as seminars can encourage them to seek support and make positive changes in their lives.

The role of social contact and peer relationships in reducing loneliness. Based on these findings, interventions can be designed to promote stronger family bonds and facilitate positive interactions among peers. Strategies such as encouraging family activities, fostering open communication and promoting healthy social connections within peer groups can contribute to reducing loneliness and improving overall well-being.

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## Appendices

### Appendix A

#### Informed Consent

Dear participant,

I am student of BS program, Psychology department of Capital University of Science and Technology. I am currently doing research on “Relationship between internet addiction, social interaction anxiety and loneliness among university students” for my BS thesis in Psychology. Please read the information carefully.

The purpose of this study is to collect data that will help in developing better support to spread awareness. Kindly, give your consent if you are willing to be a participant in the study. Then, you will be asked to fill out questionnaires related to the research. Your information will be kept confidential and will be used only for research purposes. You have complete right to withdraw from this study at any point.

#### Participant Consent form

I confirm that I have read and understood the preceding information sheet. I have been allowed to ask any questions. My participation in the study is voluntary and I have the right to withdraw from the study at any time. I understand that the information obtained from the questionnaire will be confidentially anonymous. If you have any question or concern about the study, you can email at [iqrahamza8420@gmail.com](mailto:iqrahamza8420@gmail.com).

I agree to take part in this study.

---

Signature

**Appendix B****Demographic Sheet****Age** \_\_\_\_\_**Gender** \_\_\_\_\_**Level of education** \_\_\_\_\_**University name** \_\_\_\_\_**Marital status** \_\_\_\_\_**Birth order**

First born / Middle child / Youngest one / Only

**Family structure**

Nuclear / Joint

**Doing any job**

Yes / No

**Internet availability**

Yes / No

**Living with**

Family / Hostel

**Time spends per day (on internet)**

a. 1-3 hours b. 3-6 hours c. 6-9 hours d. 9-12 hours e. 12-15 hours f. More than 15

**Family income per month in PKR (Approximately)**

a. Below 35,000 b. 35,000-75000 c. 70,000-100,000 d. Above 100.000

## Appendix C

### Chen Internet addiction Scale (CIAS)

Focusing on the last three months, rate the degree to which each statement matches your experience.

1. Does not match my experience at all.
2. Probably does not match my experience.
3. Probably matches my experience.
4. Definitely matches my experience.

	<b>Items</b>				
1.	I was told more than once that I spend too much time online.	1	2	3	4
2.	I feel uneasy once I stop going online for a certain period of time.	1	2	3	4
3.	I find that I have been spending longer and longer periods of time online.	1	2	3	4
4.	I feel restless and irritable when the Internet is disconnected or unavailable.	1	2	3	4
5.	I feel energized online.	1	2	3	4
6.	I stay online for longer periods of time than intended.	1	2	3	4
7.	Although using the Internet has negatively affected my relationships, the amount of time I spend online has not decreased.	1	2	3	4
8.	More than once, I have slept less than four hours due to being online.	1	2	3	4
9.	I have increased substantially the amount of time I spend online.	1	2	3	4

10.	I feel distressed or down when I stop using the Internet for a certain period of time.	1	2	3	4
11.	I fail to control the impulse to log on.	1	2	3	4
12.	I find myself going online instead of spending time with friends.	1	2	3	4
13.	I get backaches or other physical discomfort from spending time surfing the net.	1	2	3	4
14.	Going online is the first thought I have when I wake up each morning.	1	2	3	4
15.	Going online has negatively affected my schoolwork or job performance.	1	2	3	4
16.	I feel like I am missing something if I don't go online for a certain period of time.	1	2	3	4
17.	My interactions with family members have decreased as a result of Internet use.	1	2	3	4
18.	My recreational activities have decreased as a result of Internet use.	1	2	3	4
19.	I fail to control the impulse to go back online after logging off for other work.	1	2	3	4
20.	My life would be joyless without the Internet.	1	2	3	4
21.	Surfing the Internet has negatively affected my physical health.	1	2	3	4
22.	I have tried to spend less time online but have been unsuccessful.	1	2	3	4
23.	I make it a habit to sleep less so that more time can be spent online.	1	2	3	4

24.	I need to spend an increasing amount of time online to achieve the same satisfaction as before.	1	2	3	4
25.	I fail to have meals on time because of using the Internet	1	2	3	4
26.	I feel tired during the day because of using the Internet late at night.	1	2	3	4



## Appendix D

## Permission of Chen Internet Addiction Scale (CIAS)



陳淑惠 Sue-Huei CHEN <shchen@ntu.edu.tw>

Mon, Dec 12, 2022, 12:50 PM



to 臺大心理系陳淑惠RA, me ▾

Dear Iqra Tariq,

Thank you for your asking!

Yes, you have my permission to use our CIAS in your study. I will have my RA send you the scale file.

Sincerely,

Sue-Huei Chen

=====

Sue-Huei Chen, Ph.D. (陳淑惠)

Professor, Department of Psychology

National Taiwan University

Taipei, 10617

TAIWAN

Email: [shchen@ntu.edu.tw](mailto:shchen@ntu.edu.tw)

Tel (O): +886 2 3366-3100

Tel & Fax (Lab): +886 2 3366-3958

(sent from NTU Mail2.0)

## Appendix E

### Social Interaction Anxiety Scale (SIAS)

For each item, please circle the number to indicate the degree to which you feel the statement is characteristic or true for you. The rating scale is as follows:

0 = **Not at all** characteristic or true of me.

1 = **Slightly** characteristic or true of me.

2 = **Moderately** characteristic or true of me.

3 = **Very** characteristic or true of me.

4 = **Extremely** characteristic or true of me.

	Items	Not at all	Slightly	Moderately	Very	Extremely
1.	I get nervous if I have to speak with someone in authority (teacher, boss, etc.).	0	1	2	3	4
2.	I have difficulty making eye contact with others.	0	1	2	3	4
3.	I become tense if I have to talk about myself or my feelings	0	1	2	3	4
4.	I find it difficult to mix comfortably with the people I work with.	0	1	2	3	4
5.	I find it easy to make friends my own age.	0	1	2	3	4

6.	I tense up if I meet an acquaintance in the street.	0	1	2	3	4
7.	When mixing socially, I am Uncomfortable.	0	1	2	3	4

8.	I feel tense if I am alone with just one other person.	0	1	2	3	4
9.	I am at ease meeting people at parties, etc.	0	1	2	3	4
10.	I have difficulty talking with other people.	0	1	2	3	4
11.	I find it easy to think of things to talk about.	0	1	2	3	4
12.	I worry about expressing myself in case I appear awkward.	0	1	2	3	4
13.	I find it difficult to disagree with another's point of view	0	1	2	3	4
14.	I have difficulty talking to attractive persons of the opposite sex.	0	1	2	3	4
15.	I find myself worrying that I won't know what to say in social situations.	0	1	2	3	4
16.	I am nervous mixing with people I don't know well.	0	1	2	3	4

17.	I feel I'll say something embarrassing when talking.	0	1	2	3	4
18.	When mixing in a group, I find myself worrying I will be ignored.	0	1	2	3	4
19	I am tense mixing in a group.	0	1	2	3	4
20.	I am unsure whether to greet someone I know only slightly.	0	1	2	3	4

**Appendix F****Permission of Social Interaction Anxiety Scale (SIAS)****Russell, Daniel W [HD FS]** <drussell@iastate.edu>

to me ▾

Mon, Nov 14, 2022, 9:52 PM



You have my permission to use the UCLA Loneliness Scale in your research project.

Daniel W. Russell, PhD  
Professor, Department of Human  
Development & Family Studies  
Iowa State University  
Palmer Building  
2222 Osborn Drive  
Ames, IA 5011-1084  
(515) 294-4187  
Fax: 294-2502

-----Original Message-----

From: Social Psychology Network <[noreply@socialpsychology.org](mailto:noreply@socialpsychology.org)>

Sent: Saturday, November 12, 2022 2:47 AM

To: Russell, Daniel W [HD FS] <[drussell@iastate.edu](mailto:drussell@iastate.edu)>

Subject: SPN Profile Message: permission for scale

## Appendix G

## UCLA Loneliness Scale

Indicate how often each of the statements below is descriptive of you.

**O** indicates “I often feel this way”

**S** indicates “I sometimes feel this way”

**R** indicates “I rarely feel this way”

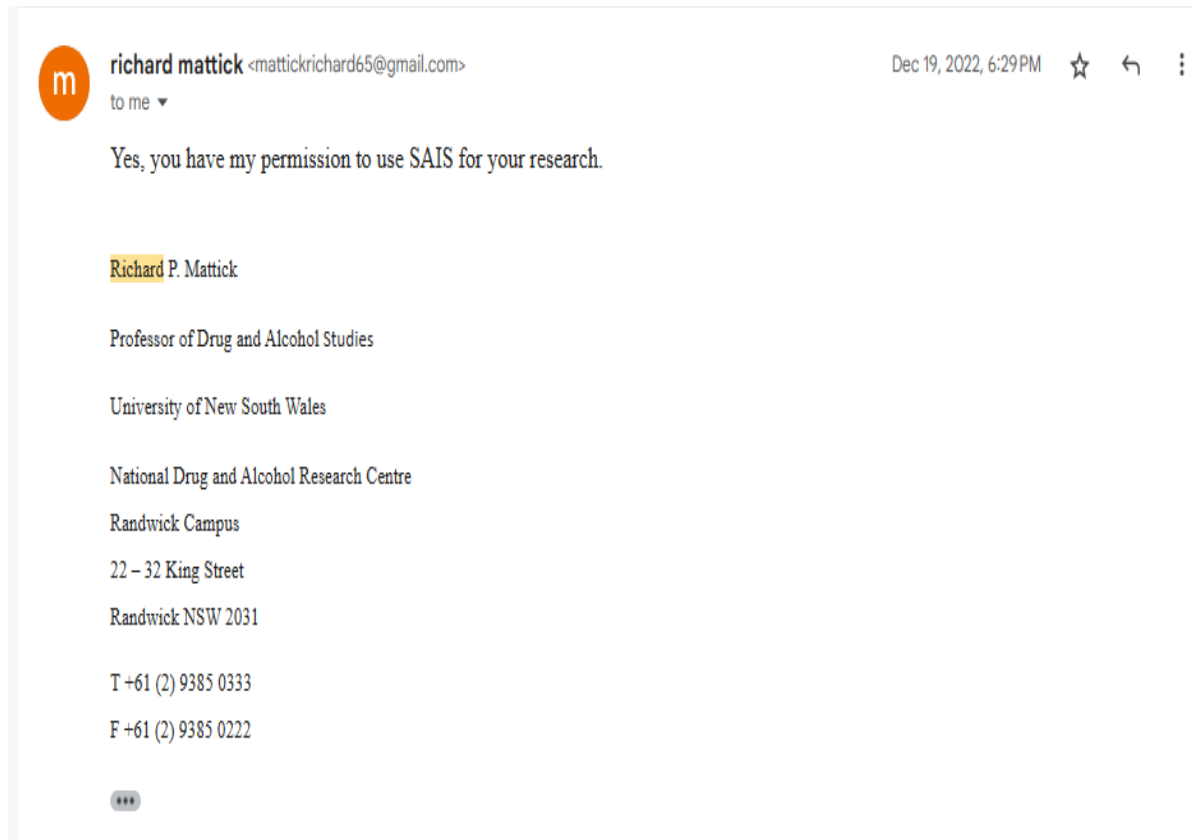
**N** indicates “I never feel this way”

	Items				
1.	I am unhappy doing so many things alone.	O	S	R	N
2.	I have nobody to talk to.	O	S	R	N
3.	I cannot tolerate being so alone.	O	S	R	N
4.	I lack companionship.	O	S	R	N
5.	I feel as if nobody really understands me.	O	S	R	N
6.	I find myself waiting for people to call or write.	O	S	R	N
7.	There is no one I can turn to.	O	S	R	N
8.	I am no longer close to anyone.	O	S	R	N
9.	My interests and ideas are not shared by those around me.	O	S	N	N
10.	I feel left out.	O	S	R	N
11.	I feel completely alone.	O	S	R	N
12.	I am unable to reach out and communicate with those around me.	O	S	R	N
13.	My social relationships are superficial.	O	S	R	N

14.	I feel starved for company.	O	S	R	N
15.	No one really knows me well.	O	S	R	N
16.	I feel isolated from others.	O	S	R	N
17.	I am unhappy being so withdrawn.	O	S	R	N
18.	It is difficult for me to make friends.	O	S	R	N
19.	I feel shut out and excluded by others.	O	S	R	N
20.	People are around me but not with me.	O	S	R	N

## Appendix H

## Permission of UCLA Loneliness Scale





## Appendix I

## Approval letter



Capital University of Science and Technology  
Islamabad

Islamabad Expressway, Kahuta Road,  
Zone - V, Islamabad, Pakistan  
Telephone : +92-(51)-111-555-666  
              : +92-51-4486700  
Fax: : +92-(51)-4486705  
Email: : info@cust.edu.pk  
Website: : www.cust.edu.pk

Ref. CUST/IBD/PSY/Thesis-384  
February 21, 2023

## TO WHOM IT MAY CONCERN

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

**Ms. Iqra Tariq**, registration number **BSP193065** is a bona fide student in BS Psychology program at this University from Fall 2019 till date. In partial fulfillment of the degree, she is conducting research on "Relationship between internet addiction, social interaction anxiety and loneliness". In this continuation, the student is required to collect data from your institute.

Considering the forgoing, kindly allow the student to collect the requisite data from your institute. Your cooperation in this regard will be highly appreciated.

Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,

**Dr. Sabahat Haqqani**  
Head, Department of Psychology  
Ph No. 111-555-666 Ext: 178  
sabahat.haqqani@cust.edu.pk

## Plagiarism Report

### report

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