



RELATIONSHIP BETWEEN LONELINESS AND INTERNET ADDICTION AMONG ADULTS

¹**Sanya Rana**, Psychologist, MSc Psychology, Cardiff University, United Kingdom

sanyarana@rocketmail.com

²**Prateek Sharma**, MBA (Human Resources), Amity University, Noida, India

prateek.sharma.0613@gmail.com

ABSTRACT

The research was conducted to investigate the correlative relationship between Loneliness and Internet Addiction among Adults falling in the age group of 18 to 30 years. During the study non-probability Sampling was used to collect data from 100-110 adults by distributing a Google Form that included the Loneliness UCLA Scale by Daniel Russell, Letitia Peplau, and Cutrona, as well as the Internet Addiction Scale by Kimberly Young. Prior consent was obtained by having the participants fill out a Google form. The collected data was analyzed with the help of SPSS software and Pearson's Correlation was performed. The correlation helped to understand the relationship between loneliness and internet addiction in adults. The study assumed that there will be a positive correlation between loneliness and internet

addiction. The result of the research showed that there is a significant correlation at 0.01 level.

Keywords: *loneliness, internet addiction, depression, anxiety, and web-streaming*

INTRODUCTION

LONELINESS

Loneliness: Human is a social entity, who relies and survives on the term of cooperation. Human lives in a society and friendship, cooperation, living together and helping each other is a normal part of life of human beings. This is also known as natural human behavior. When any person is forced to stay away from people, companionship, or society due to any reason he/she becomes sad as it is against human nature. This is called loneliness. Loneliness is an unpleasant emotion for any person on the earth. It is a psychological pain as it is against the nature of human beings. Loneliness is straight away being apart from others. Although researchers have shown that every person experiences loneliness in their life, it is normal if it is for a very short time span. When it continues for a longer time and becomes chronic then it is considered harmful as it has a risk of poor mental health as well as physical health.

Researchers also looked for a link between parental loneliness and the chance of their children becoming lonely. Long and Martin (2000) found no indication of intergenerational resemblance when they worked with senior parents (85 or older) and their mid-life offspring. Lobdell and Perlman (1986), on the other hand, surveyed 130 female undergraduates and their parents. They found that the loneliness scores of the parents were moderately linked

with those of their daughters, as expected. Of course, either genetic or environmental variables could account for such a link.

Parental involvement in children's loneliness is not a one-time event. Instead, during a person's life, loneliness is bidirectional intertwined with parent-child relationships. A first significant lifelong phenomenon is that women who are lonely throughout their pregnancy are more likely to develop postpartum depression after giving birth.

Children are extremely reliant on their parents and caregivers during their early years. Peer relationships grow more crucial as kids get older. This transition has resulted in a shift in the types of relationships that are most strongly associated with loneliness. It is the quality of children's relationships with their mothers in the middle elementary years.

It is the quality of university students' relationships with their classmates in late adolescence. In the case of more mature children, Bart (1980) investigated how children leaving home impacts middle-aged moms. She found that women who accept the conventional role of being homemakers devoted to their children are more likely to feel loneliness and despair after their children leave home than women who are less involved in a maternal, homemaker role.

THEORIES OF LONELINESS

Psychological theory of loneliness

According to this theory there are some social needs of every human being, if these needs are not met, it results in a feeling of loneliness. These needs are - need for companionship (having anyone for sharing every feeling), need for attachment (having a

secure attachment, assurance of being available whenever needed), need for social interconnection, and need for guidance if there is any problematic situation in life and finally the need for praise (actions should be appreciated).

Cognitive approach to loneliness

Loneliness is a very individual and purely subjective experience. A lonely person has very different types of perceptions, attitude, and attributions. Lonely people hold themselves liable for not having good social as well as personal relationships. They think negatively about themselves. They create an invisible wall around them and don't allow anyone to cross that. They are isolated socially by themselves.

Behavioral approach of loneliness

According to behavioral approach loneliness is the outcome of certain personality traits. Here traits are defined as stable and consistent personal characteristics. According to Raymond Cattell (1950) pattern of traits help in understanding behavior of a person. In this approach traits like shyness, social anxiety, sadness, hostility, low self-esteem, and distrust results in loneliness. A lonely person inhibits his feeling to share with someone, can't form intimate bonds and lacks social skills. They found themselves unable to have meaningful conversations which further lower their self-esteem.

TYPES OF LONELINESS

Loneliness can be categorized in different types as:

Social loneliness: Humans are a social animal and if a person is excluded from social groups or is rejected due to some reason, they may experience social loneliness. People may

suffer isolation and serious health problems due to this such as clinical depression, restlessness, distorted sleep patterns, agitation, PTSD, and even borderline personality disorder.

Interpersonal loneliness: Interpersonal relationship is a relationship between two persons who share an intimate relationship. Separation from or losing this significant relationship results in interpersonal relationships. Interpersonal loneliness can also be termed as emotional and intimate loneliness. Lack of intimacy and relationships, including affection and closeness for ageing adults is a common yet a serious problem. A person may lose hope and ability to connect with people and may suffer serious concerns as explained above.

Psychological loneliness: Psychological loneliness is a loneliness felt by a person who has faced some distressing situation that cannot be fully understood by other persons. This person felt detached from others due to his psychological barrier. In such cases, a person may suffer with concerns like anxiety, fear, shame or helplessness and face problem in discussing the same with people. These people create a downward spiral and withdraw themselves from family and friends and become aloof and lonelier.

Cultural loneliness: Adjusting in a different culture gives the feeling that one can't fit in or is not able to understand that culture and one feels out of sync with that culture. A person may feel that he is not understood, accepted, and appreciated in an estranged social environment. This causes agitation, social detachment, and lack of trust amongst people around.

Cosmic loneliness: A person facing death feels isolated and lonely. This is termed as cosmic loneliness. At this time a calculation of lives profit and loss, dos, and don'ts, found

and lost is done by the person and a feeling of emptiness arises. Absence of family, close relatives, affection may contribute to such situation. A person isolated by circumstances or rejected by relations can have adverse impact on one's mental health being specially when one is ill or at end-of-life stage.

ADDICTION

An addiction is a long-term malfunction of the brain's reward, motivation, and memory systems. It's all about how your body wants or needs a substance or habit, particularly if it leads to a compulsive or obsessive pursuit of "reward" with little regard for the consequences.

When someone develops an addiction, they will:

- Be unable to refrain from using the substance or quit engaging in addicted behavior.
- Show a lack of self-discipline.
- Have a stronger desire for the substance or activity.
- A lack of emotional reaction.

Addictions might hinder with our daily life if it is constant. Addiction can relapse and remission in lives of people who might have been a victim of it. Addictions are known to deteriorate over time. They can cause long-term health problems as well as major financial consequences such as bankruptcy.

TYPES OF BEHAVIOURAL ADDICTION

- a. ***Gambling Addiction:*** Addiction to gambling is like other addictions. It's a gradual illness that, sooner or later, can turn into a significant problem. It's also compulsive and obsessive. It's easy to succumb to the impulse. To indulge in gaming, the gambler will deceive, scam, and mislead, manipulate, and blow-up savings.
- b. ***Sex Addiction:*** Addiction to sex is described as a need to perform sexual acts to get one's desires fulfill. Sex addiction feels like an achievement to the person. Sex addiction can be very menacing and can lead to relationship problems. It's assumed that sex addict person will try to fulfill his/her needs by having multiple sex partners.
- c. ***Internet Addiction:*** Persistent or uncontrolled preoccupations, impulses, or behaviors associated with computer use and web access that cause impairment or suffering are referred to as internet addiction. Internet addiction can cause various problems like neurological problems, psychological and social problems too. Young children are more prone to this addiction as compared to others. Adolescents assess the interne the most for surfing and gaming.
- d. ***Video Game Addiction:*** A pattern of ongoing or recurring gaming behavior, demonstrated by reduced control over gaming, prioritization of gaming over other life interests and everyday activities, and maintenance or increase of gaming despite negative effects. If playing videos games hinders one's daily life activities, then it can be termed as video game addiction.
- e. ***Shopping Addiction:*** Someone who shops excessively and feels like they have no influence over their conduct is referred to as a shopping addict. Many individuals enjoy shopping, and many of them also expend too much money while doing so.

- f. *Food Addiction:*** Food addiction is like drug addiction in that it is a craving for junk food. It's a new and contentious phrase, and there are few reliable figures on its occurrence. The same neurotransmitters and brain regions are believed to be involved in food addiction as they are in drug addiction. Craving and bingeing on unhealthy foods without being hungry, as well as an inability to resist the temptation to eat these foods, are all symptoms of food addiction.

INTERNET ADDICTION

Excessive or poorly controlled obsessions, impulses, or behaviors related to computer use and web access that cause impairment or suffering are referred to as internet addiction. The disorder has gotten more attention in the public press and among scholars, and this focus has coincided with the rise in laptop (and Internet) usage. To conclude, the term "Internet Addiction" refers to a persistent need to spend a lot of time on the Internet to the point where relations, job, and health suffer as a result.

Internet addiction has been connected to social exclusion and dimensionally analyzed depression. Mood, anxiety, impulse control, and drug use problems are all prevalent psychiatric co-morbidities. The cause is unknown, although psychological, neurological, and cultural variables are likely to be involved. There are no therapies for internet addiction that have been proven to be effective. Cognitive behavioral therapy may be beneficial. Psychotropic medicine has no proven benefit. In some circumstances, marital and family therapy may be beneficial, and self-help books and recordings are accessible online. Finally,

in rare circumstances, a self-imposed restriction on computer use and Internet connectivity may be required.

When a person has a strong desire to spend a considerable amount of time on the Internet, other aspects of their lives (such as relationships, employment, or health) are permitted to suffer. To attain the same 'high,' the individual becomes reliant on the Internet and needs to spend more and more time online.

Internet Addiction Warning Signs:

Internet addiction can include three or more of the following symptoms:

- a. To achieve the same level of enjoyment, the user must spend ever-increasing amounts of time online.
- b. When a person is unable to use the Internet, they experience undesirable withdrawing symptoms such as anxiety, irritability, and obsessive Internet fantasizing. These problems are alleviated by using the Internet.
- c. To deal with unpleasant emotions like guilt, anxiety, or sadness, the user goes to the Internet.
- d. The user engages in additional Internet-related activities for a large length of time.
- e. To spend time on the Internet, the user neglects other aspects of life (such as marriage, employment, education, and leisure hobbies).
- f. In exchange for the Internet, the user is willing to sacrifice relationships, jobs, and other crucial things.

REVIEW OF LITERATURE

Cybulska and Rachubinska (2021) conducted a study, the goal was to analyze the amount of Internet and social media addiction using Facebook as an example, taking psychological and social elements into account. A group of women (N = 556) from the West Pomeranian Voivodeship in Poland participated in this survey-based study. The De Jong Gierveld Loneliness Scale, the Beck Depression Inventory, the Internet Addiction Test, and the Bergen Facebook Addiction Scale were used as research instruments, as well as a self-developed questionnaire about socio demographic data. The variables related to Internet and Facebook addiction among the study participants included age, depressive symptoms, and loneliness. The outcomes of their own study are backed up other studies. Younger women had a higher level of reliance on the Internet and Facebook.

Palermi et al. (2021) conducted a study during the COVID-19 epidemic, to look at worry of COVID-19, anxiety, and depressed mood, as well as their effect on Internet addictive behavior, modelled as intrapersonal and interpersonal conflicts. During the first nationwide lockdown, 454 Italian students were given an online questionnaire. Depression, Anxiety, and Stress (DASS-21), Terror of COVID-19, and Internet Addiction were all completed by all the selected participants. Fear of COVID-19 was linked to Internet addiction problem, and fear of COVID-19 moderated the interaction of anxiety and Internet addiction disorder, according to the findings. Finally, fear of COVID-19 was connected to Internet addiction problem after correcting for variables (age and gender).

Arzu et al. (2021) research was done to find the relationship of the levels of loneliness in teenagers during the epidemic, and their time spent on internet. The selected teenagers in

the study were 482 people who came forward to help in the study. All samples had the cognitive capabilities to communicate themselves and use internet. Samples participated by filling forms having “Descriptive Information, ULS-SF” and “IASA,” used in collection of data. As a conclusion of the various regression analysis, it was constructed that family’s revenue, mothers' schooling, fathers' academic status, the hours of Internet spending earlier and at the time of epidemic, and the total result of ULS-SF had methodically important role on the overall result of IASA ($p < 0.05$).

Smith et al. (2020) conducted a study to examine the loneliness and internet use. Loneliness and internet use were investigated in a study. During the lock-down period of the COVID-19 pandemic, the study used a cross-sectional poll. The modified version of the UCLA Loneliness Scale and the Internet Addiction Test were administered to a sample of 593 people from the Middle East region. Regression analysis revealed a link among loneliness and Problematic Internet Use (PIU) as well as a link between loneliness and the amount of time spent online. The loneliness level was higher among the younger participants. Loneliness was also linked to the quality of their connection with the member(s) with whom they spent their lockdown. Loneliness was also linked to the strength of their connection with the person(s) with whom they spent their lock-down. Those who reported feeling lonelier also got more information about the epidemic through social media. Problematic online use was linked to loneliness and loneliness predictors. The variables and PIU had a dose-response relationship, according to ANOVA tests.

Bener et al. (2019) conducted research, the purpose of the study was to look at the link of Internet addiction (IA), tiredness, and sleep issues among university students. Students

aged 18 to 25 years were the samples. Total 2350 students (78.3%) participated in this cross-sectional study at public and private universities in Istanbul. A standardized questionnaire was used to collect data, which included socio-demographic information, lifestyle and diet, the Internet Addiction Test (IAT), the Fatigue Scale, and the Epworth Sleepiness Scale (ESS). Descriptive statistics, multivariate analysis, and factorial analysis were used. The overall frequency of IA was 17.7% in the population tested. Gender, family income, father's occupation, school performance, frequency and length of television viewing, physical activity, Internet use duration, and sleep duration all had significant differences (all $p < 0.001$). Headaches, blurred vision, double vision, painful eyes, hearing problems, and eating fast food regularly were all shown to be significantly different between those with IA and those without IA (all $p < 0.001$). The duration of Internet use, physical and emotional symptoms, headache, aching eyes, weary eyes, poor hearing, and ESS scores were all found to be strongly linked with (and key predictors of) IA using multivariate regression analysis. The current study found that IA is linked to poor eating habits, sleep issues, and tiredness symptoms.

Erol and Cirak (2019) conducted a study to examine the loneliness and Internet addiction levels of graduation students keeping in mind the demography and to look at the factors that influence their level of Internet addiction. The information was gathered from college students at a Turkish public university. The UCLA Loneliness Scale Version 3 and Internet Addiction Test (IAT) were the tools that were used. Online survey was distributed among college student and got 489 students who volunteered for the study. For data analysis, this survey study used independent sample t-tests, ANOVA tests, correlation, and multiple regression tests. The findings demonstrate that younger individuals had much more isolation

than older respondents, and that students in lower grades experienced significantly more lonesome than those in upper levels. It was also observed that it was the use of computers, smartphones, and social media which led to high use of the Internet among the students. According to the findings, there is a link among loneliness, Internet addiction, age, and cumulative grade point average (CGPA). Loneliness and CGPA are also major predictors of Internet addiction. This research could be useful in establishing the psychological factors that influence today's evolving technological addiction (internet, smart phone, etc.).

Singh and Ali (2019) conducted research to study the relationship between loneliness, social anxiety, social support, and internet addiction among students. Simple random sampling was employed to identify respondents in a cross-sectional study design. A sample of 100 students were included in study, and informed consent was obtained for further evaluation. The Internet Addiction Test (IAT), the revised UCLA Loneliness Scale, the Social Interaction Anxiety Scale (SIAS), the Multidimensional Scale for Perceived Social Support (MSPSS), and the Socio demographic Datasheet were used. The study was carried out with the approval of the Central Institute of Psychiatry's scientific and ethics committee. The Statistical Package for the Social Sciences (SPSS) version 23.0 was used to analyze the data. A high amount of loneliness (92%) was reported by the respondents, as was social anxiety (21%) and social phobia (22%) and serious internet addiction (15%). Loneliness is linked to social anxiety in a substantial way. In regression analysis, social anxiety, perceived social support, and internet addiction all played a role in predicting loneliness among college students [$F(3,96) = 4.492, p=0.005$], accounting for 1.23 percent of the variance [$F(3,96)=4.492, p=0.005$]. Social anxiety has a significant role in the variation in loneliness.

Loneliness and social anxiety have a strong link, and both are strong predictors of loneliness. The frequency of addictive behavior among college students was high.

Sharma and Sharma (2018) did a study with the goal of determining the link with internet addiction and college students' psychological well-being. A multicenter pass survey of college students in Jabalpur, Madhya Pradesh, India was performed. This study comprised 461 college students who had used the internet for at least 6 months. The internet addiction scores were calculated using Young's Internet addiction scale, which consists of 20 items and is based on a five-point Likert scale, as well as a 42-item version of Ryff's PWB scale, which is based on a six-point scale. There were 440 questionnaire forms in all that were evaluated. The average age of the students was 19.11 (1.540), with 62.3 percent of them being male. Internet addiction was found to be substantially connected with PWB ($r = -0.572$, $P 0.01$) and PWB subdimensions ($r = -0.572$, $P 0.01$). PWB is more probably low in students who have a high level of online addiction. Internet addiction was found to be a significant poor indicator of PWB using simple linear regression. Internet addiction has a severe impact on the PWB of college students. As a result, developing measures for preventing internet addiction, which is critical for boosting PWB among college students, is critical.

Anand et al. (2018) conducted a study to investigate internet usage behaviors, or IA, among a large cohort of Indian engineering students, and their link to psychological suffering, particularly depressive symptoms. The study included engineering students from Mangalore, India, aged 18 to 21, who were pursuing bachelor's degrees in engineering. The Internet Addiction Test (IAT) was used to assess IA, and the Self-Report Questionnaire (SRQ-20) was used to assess psychological distress, especially depressive symptoms, using

the cultural and internet use habits criteria. 27.1 percent of engineering students fulfilled the mild addictive internet use criterion, 9.7% met the moderate addictive internet use criterion, and 0.4 percent reached the severe addictive internet use criterion among the total $N = 1086$. IA was greater among science students who were male, lived-in rented housing, and used the internet frequently.

Aqilah and Santoso (2018) conducted a study to determine the link between internet addiction and depression, anxiety, and stress. A set of 166 UIN Malang university students were chosen to participate in the study. To measure each variable of the study, everyone was given the IAT scale, DASS-42, and UCLA Loneliness scale. We asked the participants to complete questionnaires that included demographic information on how they use the internet, such as the device they use to access it, the provider they use, the reason they use it, and so on. There is an association among internet addiction, depression ($r = .32$, $p 0.05$), anxiety ($r = .39$, $p 0.05$), stress ($r = .39$, $p 0.05$), and loneliness ($r = .19$, $p 0.05$), according to a Pearson correlation study. Because of the cultural variation among the individuals, the correlation score between internet addiction and loneliness is low. These findings suggest that those who are addicted to the internet are more likely to suffer from sadness, anxiety, tension, and loneliness.

Machado and Costa (2018) studied the relationship between Internet Addiction and loneliness. Portuguese teenagers and young adults ($N = 548$: 16–26 years) did the Generalized Problematic Internet Use Scale-2, the UCLA Loneliness Scale assessment. They also stated whether they were in a committed romantic relationship and whether being online interfered with their ability to spend time with their partner, spend time with family,

and interact face-to-face with friends. 90.6 percent of girls and 88.6 percent of males said that social networking is one of their top priorities. Addiction was linked to feelings of loneliness, regardless of age or social support indicators. Based on sensory input and body feedback present in facial expression interactions, evolution established neurophysiological mechanisms to recognize meaningful social relationships. In internet conversation, these are largely absent. As a result, online communication is likely to cause emotions of isolation.

Oguz and Cakir (2017) conducted deep research to see if there is a link between loneliness and internet addiction in teacher candidates. 347 teacher candidates enrolled in the Pedagogical Formation Program at Ankara University and Mimar Sinan Fine Arts University made up the research group for this study. Two different data collection methods were used in the study. The "UCLA Loneliness Scale" and the "Internet Addiction Scale" were two among them. Gender, marriage status, job, home internet connection, and online time spent daily, save for studying, had no effect on the teacher candidates' feelings about loneliness and internet addiction. However, there is a moderately positive association between loneliness and internet addiction.

Simcharoen et al. (2017) conducted a study to examine the prevalence of loneliness and interpersonal problems among students pursuing medical. Females made up 56.8% of the 324 first to sixth year medical students, with an average age of 20.88. (SD 1.8). To identify internet addiction, researchers used all completed questionnaires relating to the goals and activities of internet use, as well as the Young Internet Addiction Test, the UCLA loneliness scale, and the Interpersonal Problems Inventory. Overall, 36.7 percent of the participants had internet addiction, which was generally minor. The amount of time spent on social media each day, loneliness, and interpersonal issues were all substantial predictors (beta = 0.441, p

0.05, $\beta = 0.219$, $p = 0.001$, and $\beta = 0.203$, $p = 0.001$, respectively), although age and gender were not. The variance of the internet addiction score was influenced by all the goals of utilizing the internet. Only non-academic or scholarly activities contributed to internet activities. The resulting model accounted for 42.8 percent of the internet addiction score's overall variance.

Demir and Kutlu (2016) conducted research to study the role of internet addiction in relationship between loneliness and depression. 452 college students (241 girls, 211 boys) within the age of 17 to 31 and who are getting education in various faculties at Firat University in Turkey were samples of this study. UCLA Loneliness Scale, Young Internet Addiction Test Short Form, and Indication Scanning List was used on the samples. The data were studied with correlation, regression, hierarchical regression analysis, and Sobel Z test. According to correlation study, there are connections in a positive way among loneliness, depression, and internet addiction. In aspect to regression analysis, loneliness results to internet addiction and depression. However, internet addiction also predicts sadness as well. As a outcome of hierarchical regression study to determine the role of internet addiction, it was examined that internet addiction has little mediation in the connection of loneliness and depression. In addition to that, it was assured that this mediation forecast at a significant level with Sobel Z Test. The result of the research shows a partial mediation role of internet addiction in the connection to loneliness and depression. According to this examination, it can be said that loneliness and internet addiction are high factors for depression. In terms of depression research, the results of this study can be considered compensation.

Elona (2016) conducted a study to examine the association between internet addiction and loneliness among Albanian students at the University of Shkodra, as well as gender

disparities in this regard, is investigated in this study. A total of 151 students aged 18 to 23 years old from various parts of North Albania took part in the study. The self-administered questionnaires Internet Addiction Test (IAT) and UCLA Loneliness Scale were used to investigate the link across loneliness and Internet addiction among undergraduates. The study discovered a little negative association between loneliness and Online addiction, but no gender differences in terms of internet addiction and loneliness levels were discovered. According to the findings, pupils who are addicted to the Internet have reduced instances of loneliness.

Shahla and Negah (2016) Conducted a study on 1052 Iranian teenagers and young adults, to investigate the link between Internet addiction and stress, sadness, anxiety, and loneliness. The Internet Addiction Test, Depression Anxiety Stress Scale, and Loneliness Scale were among the psychometrically verified items given to the subjects at random. The association between Internet addiction and psychological deficits was studied using structural equation modelling and Pearson correlation coefficients (depression, anxiety, stress, and loneliness). The data was analyzed using Pearson correlation, path analysis, multidimensional analysis of variance (MANOVA), and t-tests. Internet addiction was found to be predictive of stress, despair, anxiety, and loneliness. The findings also revealed that heavy Internet use is gender specific, with males having a higher chance of Internet addiction than females. Male Internet addicts had much higher levels of despair, anxiety, tension, and loneliness than females, according to the findings.

Beyrami and Movahedi (2015) conducted a study to examine if there was a link between elements of perceived social support and feelings of social-emotional loneliness and Internet addiction in students. For the study To, 173 Tabriz College students (78 men

and 95 women) were chosen by interfacial cluster-random selection and completed the Perceived Social Support, Feeling of Social-Emotional Loneliness, and Internet Addiction questionnaires, in addition to demographic information. Descriptive statistical approaches, Pearson's correlation coefficient, and multivariate regression were used to evaluate the data. According to the findings, there were strong links between perceived social support and feelings of social-emotional loneliness, as well as Internet addiction.

Karapetsas and Zygouris (2015) did a study to investigate at the link between internet addiction and loneliness among Greek students in their adolescent years. The study included 100 teenage students aged 13 to 15, with a mean age of 14.3 (SD. 0,647), from the city of Volos. Researchers employed the Greek version of the test for identification and recording the rates of Online addiction to draw findings regarding the rates of internet addiction (Young, 1999). On the other hand, they employed a self-administered depression questionnaire to examine the link between loneliness and Internet addiction among young individuals. The Children's Depression Inventory (CDI) is a questionnaire that is used (Kovacs, 1981). According to their findings, there is a strong link of loneliness and Internet addiction. Children who were determined to be internet addicts revealed a significant difference. According to the findings of a survey, pupils who are addicted to the Internet have much higher rates of loneliness.

Kuzucu and Ozdemir (2014) conducted a study to investigate both the directly and indirectly links among depression, loneliness, low self-control, and Internet addiction in a population of Turkish adolescents. 648 university students with an average age of 22.46 years (SD = 2.45) provided data for this study. Depression, loneliness, self-control, and Internet addiction scales were filled by the respondents. The hypothesis wherein depression

and loneliness predicted Internet addiction via impaired self-control was evaluated utilizing modelling. Only isolation, out of the two factors, was linked to Internet addiction through a lack of self-control, according to the research.

Ozdemir and Kuzucu (2014) The study evaluated both the direct and indirect connection among depression, aloofness, lack of self, and Internet addiction in a group of Turkish teens using a cognitive-behavioral model. The data for this study came from 648 college students with an average age of 22.46 years ($SD = 2.45$) and an average age of 22.46 years ($SD = 2.45$). The participants filled out depression, isolation, self-control, and Internet addiction scales. Structural equation model was used to interpret the mode in which sadness and loneliness linked Internet addiction with reduced self-control. According to the study, loneliness was the only element that was related to Internet addiction through a low sense of self. The findings are discussed in perspective of the cognitive-behavioral paradigm of generalized problematic Internet use, as well as its practical consequences.

Zhong and Yao (2014) conducted a study to examine the causative priority in the empirically reported links among Internet addiction and other psychological issues. In Hong Kong, a cross-lagged panel survey of 361 college students was performed. Excessive and unhealthy Internet use, according to the findings, increases feelings of loneliness over time. Although depression and Internet addiction had a moderate and positive bivariate connection at each point in time, the relationship was not meaningful in cross-lagged analysis. This research also revealed that online social contacts with friends and family were ineffective in alleviating feelings of isolation when compared to offline social interactions. Furthermore, while an improvement in face-to-face interactions may assist to lower symptoms of Internet

addiction, this benefit may be offset by the increase in internet community interactions because of increased Internet use. The study's results demonstrated a concerning negative spiral of loneliness and Internet addiction when taken world in general.

Babaie et al. (2013) studied the link between Internet addiction, virtual environments, and emotional intelligence was investigated. A cross-sectional survey was carried out on 201 pupils who were chosen at random. Young's Internet Addiction Test (IAT) and an emotional intelligence assessment made up the research item. The data was analyzed using the SPSS 16 program (ANOVA, 95 percent confidence). According to the conclusions of this survey, 38.3% of pupils are Internet hooked in general, 43.8 percent have a moderate reliance, 15.9% have a moderate addiction, and 2% have a serious reliance. With a standard deviation of 21.12, the mean emotionally intelligent rating among university students was percent 118.99. The intensity of Internet addiction and emotional intelligence has a negative association.

Bahri and Rashedi (2013) the purpose of the research was to see if there was a relationship between loneliness and internet addiction among students on the Qom campus of the Islamic Azad University. This descriptive-correlational study comprised 148 students from the Islamic Azad University's Qom branch. Sample was gathered using the "Loneliness Scale," Yang's "Internet Addiction Test," and a demographic variables questionnaire. The statistical analyses were performed using SPSS/12. Males made up 56.08 percent of the total, with married people accounting for 20.94 percent of the total. According to the data, there was a strong link between loneliness and two subscales of family relationship ($P0.001$) and emotional problems ($P0.001$) with internet addiction. There was also no relation between

internet addiction and factors such as age, gender, or marital status. Students should be given suitable and effective consultation times, the causes of loneliness should be addressed and appropriate therapies for reduction supplied, and secondary difficulties like internet addiction should be prevented.

Bozoglan et al. (2013) conducted a study, the purpose of the research was to investigate the Internet addiction of pre-service teachers in relation to gender, Internet accessibility, loneliness, and life satisfaction. The 247 pre-service educators who filled out the questionnaires completely did data analysis on the material. Pre-service teachers' loneliness and Internet addiction ratings are low, while their life satisfaction levels are high, according to the research. Internet addiction is more prevalent among male participants than among female users. Those with Internet access, both males and females, also exhibited higher rates of Internet addiction. There's evidence of a link involving loneliness and Internet addiction, as well as a link among life satisfaction and Internet addiction. Several recommendations for further research in this area are offered based on the findings.

Cardak and Mehmet (2013) examined the link between Internet addiction and mental health. The Online Cognition Scale and the Scales of Psychological Well-Being were administered to 479 college participants who passed a questionnaire package that comprised the Online Cognition Scale and the Scales of Psychological Well-Being. Correlation and regression analysis were used to explore the links between Internet addiction and psychological well-being. Reduced impulse control, loneliness/depression, confidence level, and distractions were all found to be poor predictors of psychological well-being. Students who have a high level of Internet addiction are more likely to have poor mental health. The

findings revealed that Internet addiction has a detrimental influence on mental well-being, and a better knowledge of the effect of psychological well-being and Internet addiction.

Sahin and Bozoglan (2013) conducted a study to investigate the relationship between loneliness, self-esteem, life satisfaction, and Internet addiction. 384 college students (114 men, 270 females) aged 18 to 24 years old from Turkey's faculty of education took part in the study. About 1000 university students were given the Internet Addiction, UCLA Loneliness, Self-esteem, and Life Satisfaction scales, with 38.4% completing the survey (see Appendix A and B). Loneliness, self-esteem, and life happiness were found to account for 38% of the overall variance in Internet addiction. The most important variable connected with Internet addiction and its scales was loneliness. Loneliness and self-esteem explained both time management and interpersonal and health difficulties, whereas loneliness, self-esteem, and satisfaction with life explained just the personal and health problems subscales.

Koyuncu et al. (2012) the algorithm that predicted Internet addiction based on depression and loneliness ran research to see how widespread Internet addiction and loneliness are among higher secondary school students. Between May 7 and June 8, 2012, a cross-sectional survey was done among high - school students in Sivrihisar, a district in rural Anatolia, Turkey. The total number of people who took part in the survey was 1157. The Young Internet Addiction Scale was used to measure internet addiction. Loneliness levels were measured using the University of California, Los Angeles Loneliness Scale. SPSS 15 was used for statistical analysis. The 1157 pupils included 636 (55.0%) boys and 521 (45.0%) females between the ages of 11 and 19. 91.9 percent of the individuals were addicted to the internet, as per the Internet Addiction Scale. Having a "Type A" personality, initially

using the internet before the age of 12, and using the internet each day for more than 2 hours a day were all possible causes for internet addictive behavior.

Akin and Iskendr (2012) conducted a study to investigate the link between internet addiction, social self-efficacy, and academic locus of control. The Online Cognition Measure, the Academic Locus of Control Scale, and the Perceived Social Self-Efficacy Scale have been administered to 311 college participants who passed a survey questions package which included Online Cognition Scale, the Academic Locus of Control Scale, and the Perceived Social Self-Efficacy Scale. Structural equation modelling has been used to assess the hypothesis model. Societal self-efficacy was found to be a favorable predictor of inner academic locus of control. Also, person's self and internal academic locus of control were shown to be significantly related to internet addiction, whereas external academic self - control was found to be positively related.

Hae and Young (2012) conducted a study to compare the characteristic impulsivity of those who have an Internet addiction to that of people who have compulsive gambling. The participants in this research included 27 patients with Internet addiction, 27 individuals with gambling disorder, and 27 healthy controls. The Barratt Impulsiveness Scale-11, the Young's Internet Addiction Test, and the South Oaks Gambling Screen were used to assess personality impulsivity, as well as the intensity of Internet addiction and gaming addiction. All subjects were also given the Beck Depression Inventory and the Beck Anxiety Inventory. The study suggests that people who are addicted to the Internet have higher levels of genetic impulsivity than individuals who are affected with gambling disorder. In addition, the degree of Internet addiction was reported to be correlated to the level of characteristic impulsivity

in Internet addicts. These findings indicate that Internet addiction can be thought of as an impulsive behavior illness, and that trait impulsivity is a determinant of Internet addiction risk.

METHODOLOGY

PROBLEM AND OBJECTIVE

To assess the relationship between loneliness and internet addiction in adults following in the age group of 18 to 30 years. The objective of the study is to understand the correlation between loneliness and internet addiction.

HYPOTHESIS

H1; There will be a significant correlation between both the variables that is loneliness and internet addiction.

SAMPLE

In this study, the data was collected from 112 adults of age group 18-30 years, residing in Delhi-NCR, by distributing the questionnaire via Google form.

SAMPLING

There are different methods of sampling which can be used while conducting research depending upon the type of the research and the type of data. In the present study conducted "non-probability sampling" method is being used. Non-probability sampling is a subjective (i.e., non-random) way of elements from the population. Non-probability method is a simple strategy in which it is impossible to compute the probability of any individual being chosen for a sample.

In contrast to probability sampling, non-probability sampling is a sampling approach in which not all individuals of the demographic have a fair probability of participating in the study. Every person in the population has an equal chance of being chosen. For exploratory investigations, such as a pilot survey, non-probability sampling is ideal. Researchers utilize this strategy in investigations where random probability sampling is unfeasible owing to time or expense constraints.

The advantage of this method is that it can use when individuals within a target population cannot be listed or specifically identified. It is possible to describe details of the sample (not a target population) and to reflect on the comments or data generated by the sample. Usually less costly when compared to probability sampling. It is more time efficient when compared to probability sampling. Whereas the challenges of this method are that it is not representative of an entire target population. It can be difficult to generalize study results. This method cannot measure sampling error factors to show validity. Researcher judgment used in forming a sample may lead to bias. Subject to non-participation error when sample subjects withdraw from participation.

For the current study, a Google form was created containing the two tests mentioned below. The form was then distributed amongst the population, and they were asked to fill their responses as per their experiences. Further, they were requested to distribute the form with their acquaintances.

VARIABLES

The independent variable for the current study is loneliness and dependent variable is internet addiction.

TOOLS

Table 1

S. No.	Name of the Test	Author and Year	No. of Items	Reliability and Validity
1.	UCLA Loneliness Scale	Daniel Russell, Letita Peplau and Cutrona, 1980	20	$\alpha = .89 - .94$ & $R = .73$
2.	Internet Addiction Test	Dr. Kimberly S.Young, 1998	20	$\alpha = .90 - .93$ & $R = 0.85$

- ***UCLA Loneliness Scale***

UCLA is a scale used to measure feelings of social loneliness as well as subjective loneliness. This scale consists of 20 items. Each item is rated from 1= never and 4 = often.

In revision of the test 10 out of 20 items were reversed scored, also the language of questions was simplified for easy comprehension. This test has high internal consistency of 0.96 and a test-retest validity 0.73. Score of the test can range from 20 to 80. Higher the score of the test indicates a higher value of loneliness and lower score of test indicates lower value of loneliness.

- ***Internet Addiction Test***

The Internet Addiction Test is a self-report questionnaire with 20 items that assesses problematic internet use or "Internet Addiction." Kimberly Young in 1998 coined the term "internet addiction," which he defines as "excessive and unregulated internet use that results in poor behavior and impairments in everyday function." Participants rate each item on a scale from 1 = never to 4 = often. 10 of the original items will be reverse scored for the final resulting.

DATA ANALYSIS

After the data collection was done, the responses were organized in an excel sheet. After the organization of data, it was imported to SPSS Software for analysis. As per our objectives, correlation was used to analyze the result.

Correlation analysis is done to assess the relationship between two variables. Positive correlation means if one variable increases, the other will also increase. On the other hand, negative correlation means when one variable increases, the other will decrease and vice-

versa. No correlation means that the two variables are not at all related. Correlation analysis was done to assess the relation between loneliness and internet addiction.

RESULT

Table 2

Correlation between loneliness and internet addiction

	Correlations	Loneliness	Internet Addiction
LONELINESS	Pearson Correlation	1	1.000**
	Sig. (2-tailed)		<.001
	N	112	112
INTERNET ADDICTION	Pearson Correlation	1.000**	1
	Sig. (2-tailed)	<.001	
	N	112	112

** Correlation is significant at the 0.01 level (2- tailed)

The result shows there is a significant correlation between loneliness and internet addiction.

Our hypothesis is proved correctly as analyzed pre-research.

REGRESSION ANALYSIS

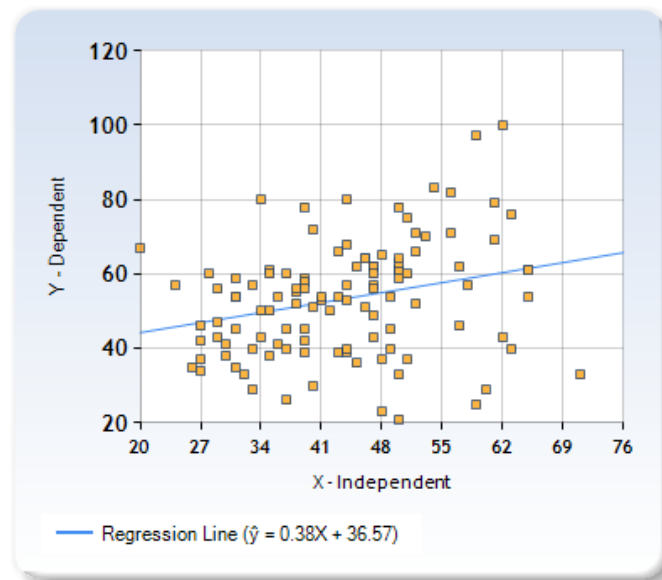


Table 3

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	952.1035	952.1035	8.723751	0.003841
Residual	110	12005.32	109.1392		
Total	111	12957.42			
	R Square	0.073479			
	Adjusted R Square	0.065056			

It is evident that, adjusted R Square value is significant at 0.06, indicating that 6% is the contribution of Loneliness on Internet Addiction and can also be seen in the graph. Loneliness is defined by a sense of solitude with a desire for social interaction other people frequently view it as withdrawal rejection on loss. Humans are social beings who rely on and survive on the concept of collaboration. Humans live in societies, and friendship, cooperation, cohabitation, and mutual aid are all natural parts of human life. This is often

referred to as natural human behavior. When a person is compelled to stay away from people, companionship, or society for any reason, he or she becomes unhappy since it goes against human nature. This is referred to as loneliness. Everyone encounters loneliness at some point in their lives, and it's perfectly natural if it's only for a short time. It is considered dangerous when it persists for an extended period and becomes chronic, as it increases the risk of poor mental and physical health.

Internet Addiction is referred to as persistent or uncontrolled preoccupations, impulses, or behaviors associated with computer use as well as internet access that cause impairment or suffering. The disorder has received more attention in the public press and among scholars, and this focus has coincided with the rise in computing (and Internet) usage. Prevalence estimates range from 0.3 to 0.7 percent, according to a recent random telephone poll of the general Public. The illness affects people all throughout the world, although it is most common in nations where computers and technology are widely used. A male prevalence is reported in clinical samples and the most of relevant surveys. Initial internet usage is said to begin in the mid-20s or young 30s, and there is often a decade or more between initial and problematic computer usage. Internet addiction has indeed been linked to dimensional characters evaluated depression as well as social isolation markers.

The author conducted the study to investigate how internet addiction affects loneliness and how both are correlated. The relationship between internet addiction and loneliness is very important and is formed and developed through various hardships. The independent variable for the current study is loneliness and dependent variable is internet addiction. The sample collected was adults falling in the age group of 18 to 30 years. During the study non-probability sampling was used to collect data from 113 adults by distributing

a Google Form that included the Loneliness UCLA Scale by Daniel Russell, Letitia Peplau, and Cutrona, as well as the Internet Addiction Scale by Kimberly Young. Prior consent was obtained by having the participants fill out a Google form. The collected data was analysed with the help of SPSS software and Pearson's Correlation was performed. The correlation helped to understand the relationship between loneliness and internet addiction in adults. As per the hypothesis, there will be a positive correlation between both the variables that is loneliness and internet addiction. The study proved with the results having positive correlation between two variables, proving the hypothesis positive.

The findings can be supported by Karapetsas and Zygouris (2015) who studied the link between internet addiction and loneliness among adults. The data was collected from 100 adults, with a mean age of 24.3 (SD. 0,647) Researchers employed the test for identification and recording the rates of internet addiction to draw findings regarding the rates of internet addiction (Young, 1999). On the other hand, they employed a self-administered depression questionnaire to examine the link between loneliness and Internet addiction among young individuals. According to their findings, there is a strong link of loneliness and Internet addiction. Adults who were determined to be internet addicts revealed a significant difference. According to the findings, pupils who are addicted to the Internet have much higher rates of loneliness.

Findings can also be supported by Machado and Costa (2018) who studied the relationship between Internet Addiction and loneliness. Young adults (N = 548: 18–28 years) did the Generalized Problematic Internet Use Scale-2, the UCLA Loneliness Scale assessment. 90.6 percent of girls and 88.6 percent of males said that social networking is one of their top priorities. Addiction was linked to feelings of loneliness, regardless of age or

social support indicators. Based on sensory input and body feedback present in facial expression interactions, evolution established neurophysiological mechanisms to recognize meaningful social relationships. In internet conversation, these are largely absent. As a result, internet addiction is likely to cause feeling of loneliness and isolation.

CONCLUSION

The research concludes that there is a significant correlation between the 2 variables which are being studied, Loneliness and Internet Addiction. Hence, our hypothesis, H1: A positive correlation between both the variables that is loneliness and internet addiction is proved positive as analyzed pre research.

LIMITATIONS

- a. Both adults and young adults were taken together in the study, hence varied viewpoints were collected.
- b. Gender difference was not taken into consideration which reduced the reliability of the research.
- c. The data for specific reason of loneliness was not collected from the population, hence giving researcher a lack of knowledge.

SUGGESTIONS FOR FUTURE RESEARCH

- a. While conduction of any similar type of research the gender difference as a variable can be taken to understand the result better.

- b. The data for reason of being lonely at any given point should also be collected to achieve better knowledge about the affecting factors.

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