A STUDY OF THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND INTERNET ADDICTION AMONG HIGH SCHOOL STUDENTS IN CALICUT CITY,KERALA, INDIA

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ABSTRACT

Internet use has become a crucial aspect of high school students' everyday life in today's digital world. Despite all of the benefits it provides, there are risks that using the internet might foster compulsive habits.This research highlights the intricate relationship between personality traits and internet addiction among high school students studying in Calicut City in Kerala, India. The researchers examined personality traits and evaluated levels of internet addiction using standardized psychometric testing on a sample of 30 students. The Big Five Personality Questionnaire which includes extraversion, openness to experience, conscientiousness, agreeableness, neuroticism, and Young's Internet Addiction Test has been used in this study.

The study emphasizes the absence of any significant relationship between personality characteristics and internet addiction. All traits were negatively related, with one exception of the trait extraversion.

The unique aspect of this study is the way it analyses personality characteristics and online addiction, particularly among high school students. The analysis offers important insights and improves our understanding of the relationship betweenpersonality traits and internet addiction.

Paper Type: *Empirical Research.*

KEYWORDS: *Personality traits, Internet Addiction, Personality and Addiction, Risk factors*
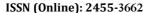
1. INTRODUCTION

In the digital age, the ubiquitous presence of the internet has revolutionized various aspects of daily life, offering unparalleled access to information, communication, and entertainment. Particularly, high school students, being digital natives, are deeply immersed in the online realm. While the internet provides numerous benefits, concerns have arisen about its potential to lead to addictive behaviours, particularly among the youth .Shaw.M, et.al.(2008)[1]. A fascination with computers and the internet, that is excessive or uncontrolled, along with compulsive or distressing behaviours, is a sign of internet addiction.Internet addiction is a burgeoning area of research that pertains to a behavioural pattern characterized by excessive and compulsive internet use, often leading to detrimental consequences in various domains of an individual's life. These consequences may encompass academic underachievement, compromised interpersonal relationships, and adverse mental and emotional well- being effects. In the modern context, recognizing the elements that lead to the development and continual growth of internet addiction is crucial. Drug addiction used to be referred to as "addiction" in

some situations. A compulsive demand for and use of substances that result in addictive habits, tolerance, and unique psychological symptoms after discontinuation of usage are the characteristics of addiction, according to Webster's Dictionary.Young KS. (1998)[2].

The significant topic that has drawn attention in the study of internet addiction is personality traits. The association between personality features and internet addiction is complex in today's digital world and is quickly growing as a subject of study. Personality traits comprise various attributes, such as agreeableness, conscientiousness, extraversion, openness to experience, and neuroticism. M.Hosťovecký,et.al(2018)[3]. When it comes to personality qualities like agreeableness, neuroticism, and conscientiousness, those with internet addictions differ greatly from those without them. People with addictions are more easily affected by unpleasant emotions and uncomfortable circumstances, which may be a sign of increased neuroticism. Rachubińska, et.al,(2021)[4

2. REVIEW OF LITERATURE

Many studies have been conducted regarding the correlation between personality traits and internet addiction among adolescents. For instance, a study was conducted on 'Psychiatric Features of Individuals with Problematic Internet Use' by ,Shapira NA et.al.(2000)[5].Their study revealed that the problematic internet use of every individual satisfied DSM-IV criteria for an impulsive control disorder. Despite their problematic internet use, all 20subjects had at least one-lifetime bipolar disorder diagnosis.Another research on 'Shyness and Locus of Control as Predictors of Internet Addiction and Internet Use' was conducted by Chak. et al. (2004)[6].Personality traits and online dependence were studied in 722 respondents, 36 percent of whom were men. The so-called "Net Generation" comprised more than 78% of them, with ages ranging from 12 to 26. Those who were born between 1977 and 1997 are referred to as "Net Generation" members. Merely 106 out of 722 individuals obtained a score of five or higher on the internet addiction scale. Regarding internet use, addicts log on an average of 1.08 extra days per week and 0.64 extra hours per session than non-addicts.
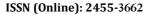
Xuepinget.et.al. (2008)[7]conducted a study on 'Increased Regional Homogeneity in Internet Addiction Disorder: A Resting-State Functional Magnetic Resonance Imaging Study' among 5135 Chinese teenagers. The findings revealed that 8.78% of the teenagers had an internet addiction, and 94.32% of the teenagers used the internet. Compared to girls and junior middle school students, boys and senior middle school students were more likely to be internet addicts. Another research was conducted by Regina J. J. M,et.al .(2008)[8]. The results of their research on 'Online Communication, Compulsive Internet Use, and Psychosocial Well-being among Adolescents: A Longitudinal Study' indicate that adolescents who use messaging platforms excessively seem to have more significant depression symptoms. A descriptive correlational study was conducted by Bibi Eshratet.al .(2010)[9]. Intheir study on 'Internet Addiction Based on Personality Characteristics of High School Students in Kerman, Iran.' five hundred and thirty-eight male and female students enrolled in Kerman's second grade of high school. They discovered that emotionally sensitive students are less likely to use the internet excessively and compulsively in response to unfavorable emotions when faced with challenges .Ebru Ozturk et.al (2011)[10] in their study on 'An Investigation of the Problematic Internet Use of Teacher Candidates Based on Personality Types, Shyness, and Demographic Factors'indicates that men are more vulnerable than women to developing an online addiction and they also found out that, there was a strong link between neuroticism, shyness, lying, and internet addiction.

Kuss et.al (2011)[11] conducted a study on 'Internet Addiction in Adolescents: Prevalence and Risk Factors', and the results indicated that social media and online gaming usage raised the risk of internet addiction, but among those with significant use of the internet, extraversion and conscientiousness appeared to be protective characteristics. Another study conducted by Odaci.et.al.(2013)[12] on 'Who are Problematic Internet Users? An Investigation of the Correlations Between Problematic Internet Use and Shyness, Loneliness, Narcissism, Aggression, and Self Perception', indicated that problematic internet use is associated with shyness and hostility. For this reason, psycho-educational and international programs should consider this to better educate future undergraduates. Additionally, it will help those with narcissistic personality traits, shyness, and self-perception. In astudy 'Personality, Internet Addiction, and Other Technological Addictions: A Psychological Examination of Personality Traits and Technological Addictions,' by Zaheer Hussain et al. (2013)[13]their findings indicated that certain personality types may increase an individual's risk of developing a technological addiction. Conscientiousness, agreeableness, neuroticism, extraversion, and openness to experience, for example, have been found to explain between 6% and 17% of the variance in many types of technological addictions, including addictions to facebook, video games, and the internet, as well as mobile devices.

Sun-Mi Cho,et.al (2013)[14] in a study titled, 'Does Psychopathology in Childhood Predict Internet Addiction in Male Participants?'. They found that 3.6% of the adolescents in their study, which took place in a middle school in Korea, were internet addicts and that there was a strong correlation between withdrawal, anxiety, or hopelessness and the eventual emergence of internet addiction.

Tokunaga,R.S.(2014)[15] in his study on 'A Unique Problem or The Manifestation of A Pre-existing Disorder? TheMediating Role of Problematic Internet Use in the Relationship between Psychosocial Pre-existing Problems and Functional Impairment', found that obsessive internet use is one of the mediation pathways between psycho-social issues and functional impairment. Candan Oztürk et.al (2015)[16] in their research on 'Analysis of the Relationship between Personality Traits and Internet Addiction' among 328 teenagersin two senior high schools in a provincial centre in Western Turkey, found how adolescent personality traits were related to the chance of internet addiction. Adolescents who were open to new experiences had a 1.79-fold increased risk of addiction. Although the fact that internet usage is rising significantly nowadays, they advise preventive actions to shield adolescents from online addiction, especially those who are open to new experiences. Aboujaoude, E. (2017)[17] in his research , 'The Internet's Effect on Personality Traits: An Important Casualty of the "Internet Addiction" Paradigm'.,gives a narrative assessment of the literature, highlighting how studies on internet users have demonstrated the harmful impacts of the internet on personality traits. Some of the behavioural characteristics that seem to be encouraged by the internet and may have unfavourable offline effects are impulsivity, narcissism, and aggression.

Robert S.Tokunaga(2017)[18]conducted another study on 'AMeta-Analysis of the Relationships between Psychosocial Problems and Internet Habits: Synthesizing Internet Addiction, Problematic Internet Use, and Deficient Self-Regulation Research'. His findings of cumulative correlations showed that internet usage was independently associated with feelings of loneliness and despair. Emma Louise Andersona,et.al (2017)[19] studied 'Internet Use and Problematic Internet Use: A Systematic Review of Longitudinal Research Trends in Adolescence and EmergentAdulthood' and find out that personality traits show a clear and significant connection with adult problematic internet use. Furthermore, they suggest that more research on contextual and activity-related characteristics is required for a deeper comprehension of young people's internet usage and problematic internet usage behaviours. Another research conducted by M.Hosťovecký et.al (2018)[3] in their study on 'The Relationship between Internet Addiction and Personality Traits in Slovak Secondary Schools Students' set out to find out how common dependence on the web was, among 707 secondary school students in Slovak secondary schools. and their findings also showed that students who are more conscientious than less conscientious will have a lower rate of internet addiction; students who are more neurotic than less neurotic will have a higher risk of internet addiction; and students who exhibit more open behaviour will have a lower rate of internet addiction than students who exhibit more closed behaviour.

The study, titled 'Personality Traits, Strategies for Coping with Stress and the Level of Internet Addiction—A Study of Polish Secondary-School Students' conducted by Joanna Chwaszcz et.al,(2018)[20]which included 383 secondary school students ages 15 to 19 , the researchers found a relationship between particular personality traits and coping mechanisms and media addiction. The personality traits most closely linked to problematic internet use were emotional stability and consciousness.

3. PROBLEM
To study the relationship between personality traits and internet addiction among high school students in Calicut City, Kerala, India.

4. OBJECTIVES
The objectives of this study are:
1) To find out the level of internet addiction among high school students.
2) To examine the relationship between internet addiction and personality traits.
3) To assess the amount of time high school students spend surfing the internet, and the probability that they may develop internet addiction.

5. HYPOTHESES
The null hypothesis has been used to examine the relationship between the variables.
1. There is no difference in the levels of internet addiction between males and females.
2. There is no significant relationship between personality traits and internet addiction.

6. METHODOLOGY
Sample: The sample consisted of 30 high school students who used the internet for non-academic purposes for more than three hours a day. High school students in this study are students who were in the VIII, IX, and X standards of a private school in Calicut City in Kerala, India. The students were selected based on incidental sampling.

Procedure: The data was collected in the classroom at the end of the teaching-learning session when students were explained the purpose of the study. Participation was voluntary and their consent to be part of the study was obtained. Confidentiality was assured. A semi-structured schedule was distributed to students to record the socio-demographic profile of students. Following this, the students were made to respond to the Big Five Inventory and Young's Internet Addiction Test (IAT).

Test Used For Assessment: The BFI, or Big Five Inventory is a self-report questionnaire with 44 items in total. The test measures the prevalence of the following personality traits –openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The Italian translation of the Big Five Inventory (BFI) was evaluated for internal consistency reliability, factor structure, and convergent-discriminant validity in two separate samples ofnonclinical adult respondents. Data on the reliability of the 2-month retest were provided by John, O. P., & Srivastava. S(1999)[21]. The higher scores on this test indicate the greater prevalence of the concerned personality traits.

Dr. Kimberly Young's Internet Addiction Test (IAT) is a valid and reliable tool for assessing addictive online use. It consists of 20 items measuring three different levels of internet addiction: mild, moderate, and severe. The reliability of Young's Internet Addiction Test yielded an overall Cronbach's of 0.889 in a meta-analysis of eleven studies. Young's Internet Addiction Test is a valid test with adequate psychometric qualities and a trustworthy instrument that can be used for psychological and psychiatric research to screen both casual online users and internet addicts[22].

7. ANALYSIS OF RESULTS

Table1- Levelsand Percentage of Internet Addiction

Students	N	Normal Level	Percentage	Mild Level	Percentage	Moderate Level	Percentage	Sever Level	Percentage
MALE	15	0	0	0	0	8	53	7	47
FEMALE	15	0	0	0	0	11	73	4	27
TOTAL	30	0	0	0	0	19	63	11	37

Table 1 shows thelevels as well as the percentage of internet addiction in both male and female students. Out of the30 students, 63.% had moderate internet addiction and 37 % had severe internet addiction.

In particular, 53% of male students displayed moderate addiction to the internet and 47 % showed severe internet addiction. Of the female participants, 27 % were classified as severely addicted to the internet, while 73 % showedsigns of moderate internet addiction. Remarkably, not a single person showed signs of normal levels of internet addiction.This data shows that internet addiction was highly prevalent in the participant group and that almost all of them had moderate to severe levels of addiction to the internet. The fact that no mild or non-addictivetendencies were seen in anyof the subjects indicates students cannot function and spend time without the use of the internet. Theresults disprove the Null Hypothesis 1.

Table 2-ThePearson's Correlation Coefficient of Personality Traits and Internet Addiction

Personality traits	Pearson's r with IAT score
Extraversion	0.23
Agreeableness	-0.11
Conscientiousness	-0.23
Neuroticism	-0.22
Openness to experience	-0.14

The Pearson's correlation coefficient between personality traits and internet addiction is displayed in Table 2.
The personality traits of extraversion and internet addiction have a r of 0.23. The association between these two variables is weak, even though the result formally demonstrates a positive correlation. Therefore extraversion cannot be considered as a personality trait to result in high levels of internet addiction. The results indicate that there is a low negative correlation of – 0.11 between agreeableness and internet addiction.

It becomes apparent that conscientiousness and internet addiction are also negatively correlated with an r of 0.23. Neuroticism and internet addiction are also negatively correlated with a r of -0.22.

The r for openness to experience and internet addiction is -0.14. The current study demonstrated no statistically significant relationship between personality traits and internet addiction. All personality traits are negatively correlated except extraversion (0.23), where there was a slight positive correlation. Agreeableness, conscientiousness, neuroticism, and openness to experience show that these traits are inversely related to internet addiction although the results are not significantly high. Therefore the results indicated in Table 2 do not prove the hypothesis as there is a low correlation between all the personality traits and internet addiction.
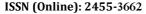
The Null Hypothesis 2 is rejected.

8. DISCUSSION

This investigation aimed to find the correlation between personality traits and internet addiction. Seventy-three percent of female students demonstrated moderate addiction, and 27%. were severely addicted. Whereas the percentage of addiction among male students was 53% and 47% for moderate and severe addiction respectively.The studies of Chou,et.al.(2000),[23], Morahan- Martin,et.al.(2000)[24], revealed that males are more prone to internet addiction than females. The present study also confirms these findings. The present study does not find any statistically significant correlation between agreeableness, conscientiousness, neuroticism, as well as to experience, and internet addiction, in contrast to many studies cited in this study's review of the literature.

Some studies, however, show that males and females experience different levels of internet addiction because of things like the activities they want to do online, coping strategies, and social expectations. According to certain research, boys are more likely than girls to play games or gamble online, which may lead to a higher prevalence of addiction has indicated in this study. However, given their preference for social networking and shopping, women are more susceptible to developing an addiction to these online activities.

In this study, interestingly, no participant's degree of internet addiction was classified as normal or mild. Therefore the results disprove the null hypothesis that there is no difference in the levels of internet addictionamong male and female students.

Highly extroverted people may become addicted to using the internet because they have a great need for excitementand

interaction with other people. Their compulsive need for ongoing connection may be satisfied by their excessive use of social media, regular participation in online discussions, or participation in a variety of online activities. For introverted people, internet addiction may result from using the internet as their main social media platform and taking solace in the privacy and lower social pressure of online contact. There is a connection between a higher risk of internet addiction high neuroticism and low conscientiousness. While higher neuroticism may result in a greater sensitivity to stress and a reliance on the internet for coping techniques, lower conscientiousness individuals may find it difficult to self-regulate their online activity. But it's important to take into account a variety of factors, including social and environmental effects, that go beyond personality features and can lead to internet addiction. An increased risk of internet addiction could result from having a high degree of experience, as it could arouse curiosity about a variety of online activities and information.

There are other possible variables than personality traits that could affect internet addiction. According to Habib Ullah Khan et al. (2017)[25] factors such as social, psychological, environmental, and cognitive aspects, alsohave an impact on internet addiction. Overuse of the internet is encouraged by easy access to it via a variety of devices. In addition, social variables including social isolation, loneliness, or a lack of offline social relationships may encourage people to look for social engagement online excessively. Several psychological factors might contribute to excessive internet use. Mental health conditions such as sadness, anxiety, or stress can cause people to turn to the internet for entertainment or consolation. Through social media like, winning at online games, or inform ation discovery, the internet offers quick satisfaction and rewards. This can cause compulsive behaviours to get reinforced. The idea that online activities are more rewarding than in-person interactions can be reinforced by cognitive biases such as excessive gaming, social media use, or checking alerts often. These biases can distort perceptions and promote addictive behaviours. Internet addiction can also result from familial and social circumstances, such as unhealthy family dynamics, inadequate parental monitoring, peer pressure, or social isolation.

In light of the study's findings, which did not reveal a substantial correlation between personality traits andinternet addiction, the following corrective suggestions for internet addiction are recommended:

1. It would be advantageous to implement universal intervention strategies. These can be informational
2. campaigns, seminars, or workshops to educate people about responsible internet use and the potentialhazards of engaging in excessive online activity.
3. Prioritise behavioural modification strategies that are characteristics. To cut down on the amount of time spent online overall, encourage people to create internet-free zones, set time limits, and participate in otheroffline activities.

4. Promote non-personality-dependent stress-reduction methods and mindfulness-based practices. Engagingin mindfulness activities can assist people in improving their self-regulation skills and improving their consciousness about their online behaviour.
5. Highlight the value of forming close relationships, and bonds with family, and joining neighbourhood organizations to lessen reliance on online contacts.
6. A guide for developing positive screen habits that suit all personality types can be provided, emphasizing moderation in usage, meaningful online pursuits, and abstaining from obsessive or excessive activities
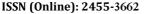
9. LIMITATIONS OF THE STUDY
A few limitations of the current study need to be taken into account. A small sample of participants in the
study may limit or influence the findings of the study. Therefore it becomes difficult to generalize the findings of this study to all student populations in India. The assessment may have been more effective if the tests used were in the vernacular language which is Malayalam for this sample. Furthermore, response bias or social desirability bias could have been introduced when using self-reported measures to evaluate internet addiction.

10. CONCLUSIONS
1. Males are more prone to internet addiction than females therefore the null hypothesis has been disproved
2. There is no significant correlation between personality traits and internet addiction thus the study does not support the null hypothesis
3. The researcher found that the larger sample size can provide a more accurate value of the true relationshipbetween personality traits and internet addiction

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