

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

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ABSTRACT

In the historical development of the Construct of Internet Addiction since 1996, Problematic Internet Use has been used as the indicator of pathological internet usage. This study aimed to assess the relationship of Problematic Internet Use with Psychological Factors such as Psychological Resilience, Perceived Stress, and Subjective Happiness among Indian College Level Young Adults across a Private University in Uttar Pradesh, India. Using a Cross-sectional Correlational Design and a Purposive Sampling Design the study sampled 138 Students and administered the appropriate psychometric tests to collect the data. Pearson's Correlation coefficients revealed Problematic Internet Use to have a positive relationship with Perceived Stress, and a negative relationship with Psychological Resilience and Subjective Happiness. Implying that these factors contribute towards indicating the scope of Community Health Research in the Digital Age.

Keywords: *Problematic Internet Use, Psychological Resilience, Perceived Stress, Subjective Happiness, Digital Behaviour*

Problematic Internet Use is an addictive behaviour which entails excessive and obsessive use of the internet through social media, video gaming, web-streaming, pornography viewing, and shopping, leading to psychological burden and negative life outcomes such as psychosocial dysfunction, neglect, and control issues (Beard & Wolf, 2001; Chao et al., 2020). Originating from anecdotal cases in 1996, the perception of Internet Addiction in the research community has evolved from being seen as a Substance Dependence (Young, 1996), to an Impulse Control Disorder (Young, 1998), to acceptance of other perspectives recognising more specific disorders i.e., Cybersexual and Gaming Disorders by APA (Shapira et al., 2003; Griffiths et al, 2016). It has led to the construction of several measures to objectively assess its phenomenon such as, Young's Internet Addiction Test, Chen Internet Addiction Scale, and Problematic Internet Use Questionnaire (PIUQ) (Aboujaoude, 2010). Between all of it, Problematic Internet Use has been widely accepted as the concept enveloping the maladaptive use of the internet. Being a psychopathological construct, its role and prevalence fluctuates between 11% and 23% which could go up to 60% and beyond according to the nature of the sample (Villanueva et al, 2022; Dhamnetiya, Singh, & Jha, 2021).

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Received: April 18, 2024; Revision Received: May 12, 2024; Accepted: May 16, 2024

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

Psychological Resilience is the ability to positively adapt despite adversity, it can be conceptualized as a construct with dual dimensions i.e. positive adaptation and significant adversity (Luthar, 2006). Its relationship with Problematic Internet Use has been Meta-analysed by Hidalgo-Fuentes, Marti-Vilar, & Ruiz-Ordenez (2023), which achieved an outcome of person's correlation to be -0.27 at 0.05 level of significance. Same has been studied among Undergraduate and Postgraduate students by Basri et al. (2022).

Perceived Stress is a crucial psychological factor referring to as an individual's evaluation of their Life Events as to being stressful, uncontrollable, or unpredictable (Cohen, Kamarck, & Mermelstein, 1983; Phillips, 2012). Perceived stress across multiple south-east Asian research studies has been established to have a significant positive relationship with Problematic Internet Use (Singh et al., 2022; Gao et al., 2020).

Subjective Happiness is the overall assessment of an individual's life by the said individual in terms of whether their life is Happy or Not (Lyubomersky & Lepper, 1999), which means to seeing abundance, fulfilment, and harmony in one's Life (Puri & Maan, 2023). One-way regression analysis has established Subjective Happiness to have a significant reduction caused by Higher Problematic Internet Use (Alshakhsi et al., 2022).

METHODOLOGY

Aim

To assess the relationship of Problematic Internet Use with Psychological Factors including Psychological Resilience, Perceived Stress, and Subjective Happiness in Indian Young Adults.

Objectives

- To assess the Level of Problematic Internet Use, Psychological Resilience, Perceived Stress, and Subjective Happiness among Indian Young Adults.
- To assess the Relationships between Problematic Internet Use, Psychological Resilience, Perceived Stress, and Subjective Happiness.
- To discuss the implications of Relationships between Problematic Internet Use, Psychological Resilience, Perceived Stress, and Subjective Happiness on Indian Young Adults.

Hypothesis

- H₀: There is no significant relationship between Problematic Internet Use, Psychological Resilience, Perceived Stress, and Subjective Happiness.
- H₁: There is a significant relationship between Problematic Internet Use, Psychological Resilience, Perceived Stress, and Subjective Happiness.

Participants

Young age being a major predictor of Problematic Internet Use, college level students in the Young Adult age group between 18 and 25 Years were included in this study because even though reporting higher Problematic Internet Use, adolescents face certain sanctions of Parental Control and Supervision (Kumar et al., 2019). All the participants were voluntary, not been given any monetary compensation, and knowing English since standardised English versions of all tools were used. 138 students, 98 Females and 40 Males, of different Departments of a Private University in Uttar Pradesh, India met the inclusion criterion with

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

the mean age of approximately 19.91 (std. dev. 1.49, range 18-25), qualified as Undergraduates (126), Graduates (24), and Postgraduates (5).

Research Design

In this Quantitative Method Study, a Cross-sectional Correlational Design was adopted, which means that the four variables were studied in terms of the significance of relationship between them at a certain point of time (Setia, 2016). The participants and variables will be assessed and studies through administration of psychometric measures which will help generate statistics and draw inferences, so that we can describe the nature of the sample and retain or reject the Null Hypothesis.

Measures

- **Problematic Internet Use Questionnaire (PIUQ-18) given by Pramod and Raju (2008)** designed to measure pathological behaviours and other issues related to using the Internet. It measures the said construct on the grounds of control issues, neglect, and obsession. It consists on 18-items to be self-reported on a 5 point Likert scale to be rated between 1 to 5, giving it a scoring range of 18 to 90. On the moderate to higher end i.e., Total Raw Score of the individual exceeding 41, it serves as an indicator of being at risk of internet dependence or internet addiction. It has a good reliability of 0.87 and a good validity of 0.82 with Demetrovics' et al. (2008) Problematic Internet Use Questionnaire.
- **Brief Resilience Scale (BRS) by Smith et al (2008)** is a globally applied measure of the ability to cope with stressful feelings and situations efficiently and adaptively. It contains 6 items to be self-reported on a 5-point Likert Scale between 1 to 5, with items reversed alternatively and the Total Raw Score to be divided by 6, giving it a scoring range of 1 to 5. Where 1.00-2.99 indicates Low Resilience, 3.00-4.30 indicates Normal Resilience, and 4.31-5.00 indicates High Resilience. It has a Cronbach's alpha of 0.76 and good amount of concurrent validity. This scale has a special place in applied and behavioural science visible throughout research in Southeast Asia and India
- **Perceived Stress Scale (PSS-4) by Cohen, Kamarck, & Mermelstein (1983)** is a globally applied measure to assess an individual's perception of stress. It is a 4-item measure to be rated on a 5-point Likert Scale in the range of 0 and 4, with the middle two items reversed, obtaining a scoring range of 0 to 16. Higher Scores are indicative of Stress. The overall Internal Consistency of this scale is 0.781-0.886 and it has an acceptable level of validity. It has been applied unchanged and adapted across Southeast Asian and Indian research.
- **Subjective Happiness Scale (SHS) by Lyubomirsky & Lepper (1999)** is a widely applied measure to assess Happiness through the subjective frame of the Individual. Psychometrically validated on Indian population by Pyne et al. (2020), this scale has 4 items which are rated on a 7-point Likert Scale ranging from 1 to 7, with one item reversed and score calculated by dividing the Total Raw Score by 4, it has a scoring range of 1 to 7. College students average approximately 4.5 to 5.0, hence lower and higher scores are indicative of poorer or better subjective evaluation of happiness respectively. It has a satisfactory level of Internal Consistency, Construct Validity, and Structural validity to be applied across Southeast Asia and India (Pyne et al., 2020).

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

Data Collection

Looking at the resource availability, Purposive sampling Design was used for the study, which is a type of non-probability design. It means the participants were taken as volunteers for the study by seeing if they are available and fit into the designed inclusion criterion or not (Andrade, 2021). With due consent and debriefing, the data was collected through printed forms administered in controlled classrooms across the Private University in Uttar Pradesh.

Data Analysis

The Data obtained was processed through IBM’s Statistical Package for Social Sciences (SPSS) version 20, while following the STROBE Guidelines for Reporting Cohort Studies (Von Elm et al., 2007). In order to obtain descriptive and inferential statistics of the group. The mean score, standard deviation, variance, and normal distribution curve were observed to describe the nature of participants’ performances. Furthermore, two-tailed Pearson’s Correlation were calculated to observe the relationship between each of the variable with p value significant at 0.01 significance level.

RESULTS

The descriptive Statistics drawn from the data, to describe the nature of Problematic Internet Use, psychological resilience, perceived stress, and subjective happiness amongst our sample included measures of central tendency, variance, standard deviation, skewness, and kurtosis, reflected in Table 1.

Table 1. shows the Descriptive Statistics

		Problematic Internet Use	Psychological Resilience	Perceived Stress	Subjective Happiness
N	Valid	138	138	138	138
	Missing	0	0	0	0
Mean		46.5072	18.4855	3.0809	7.8913
Median		48.0000	18.0000	3.0000	8.0000
Mode		49.00	18.00	3.00	7.00
Std. Deviation		12.43978	3.60704	.60117	2.61016
Variance		154.748	13.011	.361	6.813
Skewness		-.038	.175	.175	.388
Std. Error of Skewness		.206	.206	.206	.206
Kurtosis		-.302	.246	.246	.831
Std. Error of Kurtosis		.410	.410	.410	.410

The Descriptive statistics reflected that the central tendencies of participants’ scores across all four measures show that the participants have approximately 47.8 Problematic Internet Use Score indicating a lot of them to be under the risk of Problematic Internet Use and developing Internet Dependency, they had an average psychological resilience score of approximately 3 indicating them to be at the lower end of Normal Resilience, they had an average perceived stress score of approximately 7.7 indicating a moderate level of perceived stress, and they had an average approximate happiness score of 4.1 indicative of being slightly Below Average meaning the sample group evaluated them as less happy. The distribution of participants’ scores had a normal level of skewness and kurtosis on the

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

Normal Distribution Curve, paired with the standard deviation and variance indicating the distribution of scores to be even and not highly dispersed.

The Inferential Statistics drawn to assess and analyse the relationship between the variable, and retain or reject the null hypothesis, included two-tailed Pearson's Correlation. It helps assess the magnitude and significance of the relationship between the variables reflected in Table 2.

Table 2. shows the Inferential Statistics

		Problematic Internet Use	Psychological Resilience	Perceived Stress	Subjective Happiness
Problematic Internet Use	Pearson Correlation	1	-.417	.368	-.213
	Sig. (2-tailed)		.000	.000	.012
	N	138	138	138	138
Psychological Resilience	Pearson Correlation	-.417	1	-.409	.312
	Sig. (2-tailed)	.000		.000	.000
	N	138	138	138	138
Perceived Stress	Pearson Correlation	.368	-.409	1	-.239
	Sig. (2-tailed)	.000	.000		.005
	N	138	138	138	138
Subjective Happiness	Pearson Correlation	-.213	.312	-.239	1
	Sig. (2-tailed)	.012	.000	.005	
	N	138	138	138	138

The Inferential statistics showed a significant correlation amongst all variables. There is a moderate negative correlation between Problematic Internet Use and Psychological Resilience ($r = -0.417$, $p < 0.001$), there is a moderately positive correlation between Problematic Internet Use and Perceived Stress ($r = 0.368$, $p < 0.001$), there is a slightly negative correlation between Problematic Internet Use and Subjective Happiness ($r = -0.213$, $p < 0.05$), there is a moderate negative correlation between Perceived Stress and Psychological Resilience ($r = -0.409$, $p < 0.001$), there is a moderate positive correlation between Subjective Happiness and Psychological Resilience ($r = 0.312$, $p < 0.001$), and there is a slight negative correlation between Subjective Happiness and Perceived Stress ($r = -0.239$, $p < 0.01$). There is a range of inferences that can be drawn from their relationships.

DISCUSSION

Problematic Internet Use has a good amount of background and tribulations as a Construct. The study measures Problematic Internet Use and its relationship with certain Psychological Factors i.e., Psychological Resilience, Perceived Stress, and Subjective Happiness. With

Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

clear objectives and hypotheses drafted, it utilises a Correlational Quantitative Research Design, appropriate measures, purposive sampling design, and a data collection methodology. The collected and tabulated data reflects the results.

The subject details make it seemingly clear that the study is clustered more around younger, female, and undergraduate participants, which could be rationalised by two reasons. Firstly, Young Age directly results in more UG participation, and it is supported through the established phenomenon of Young Age being a strong predictor of Problematic Internet Use (Singh et al., 2022). Secondly, a more predominantly female sample would support the exploration of psychopathologies found more frequently in females such as Social Media Addiction (Su et al., 2019).

It can be speculated that these findings do not just simply indicate the relationship between Problematic Internet Use and Psychological factors, its implication on our Digital Behaviour can explain our behaviour on a society level. Like we have discussed in its background, the resurgence of Internet has had a multifaceted effect on our Public Life i.e., political, social, academic, and professional (Hema, 2019). Today, Internet is used for everything between our necessities such as Hospitals to our Wants such as Food Delivery, and in a setting like that where millions of people are engaging in a behaviour, the collective needs to be studied. At least in our sample and literature review, young people are seemingly the most affected by Internet Usage related pathology (Singh et al, 2022). Hence, the discovered relationship between Problematic Internet Use with Positive and Negative Psychological factors, is a matter of Community Health.

This study has certain limitations that need to be discussed. Firstly, it was a cross-sectional study, which means it has distributed the state of these variables at a certain point of time, rendering it unable to demonstrate the interaction of Problematic Internet Use with these Psychological Factors over time. A Longitudinal Study could be more telling about the evolutionary patterns of Internet Usage (Moreno et al., 2019). Secondly, this study doesn't attempt to establish a directional relationship between Problematic Internet Use and these Psychological Factors. Regression and Path Analysis can establish Factor Models that accurately demonstrate the direction of cause and effect (Alshakhsi et al., 2022). Thirdly, being sampled with convenient purposive design, the sample could have even more external validity if it was a random representative sample.

Ethical Consideration

All the Ethics of Research Conduction and Reporting have been kept in mind in this study, and its ethical conduction has been overseen by Dr Alisha Juneja, Assistant Professor-I Of Amity University, Uttar Pradesh.

CONCLUSION

With the Cross-sectional Correlational Design, this study has correlated Problematic Internet Use with psychological factors using psychometric measures. Considering that Problematic Internet Use is significantly related to all three Psychological Factors, the Null hypothesis is rejected. Problematic Internet Use is related directly to perceived stress and inversely related to psychological resilience and subjective happiness. It reaffirms the importance of global standardization, establishment of theoretical models, and hard truths about psychopathological cognitions and behaviours related to Internet Usage and contributes to its knowledge pool.

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Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults

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Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Dua, B. & Juneja, A. (2024). Problematic Internet Use and Its Relationship with Resilience, Stress, and Happiness among Indian Young Adults. *International Journal of Social Impact*, 9(2), 50-57. DIP: 18.02.006/20240902, DOI: 10.25215/2455/0902006