

Association of Internet Addiction with Social Support, Loneliness And Stress: A Cross Sectional Study among Female College Students

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Abstract

Background: Internet Addiction is a significant emerging mental health condition among Indian college students and cascading into a major public health concern. Internet addiction has witnessed an upsurge as a clinical phenomenon among young adults precipitated by new challenges specific to this developmental age and owing to its complexity resulting from multiple psychosocial factors which warrants the need for effective multi modal intervention due to high relapse rates and resistance to treatment.

Aim: The present investigation was aimed to evaluate the association of Internet Addiction with social support, loneliness and stress among female college students in Chandigarh.

Methodology: It was a cross sectional study among 200 undergraduate female students within the age range of 18-21 years, drawn from various colleges pertaining to Chandigarh region. Internet Addiction Test (Young, 1998) was employed as a screening instrument to identify internet dependence and other assessment tools administered include Perceived Stress Scale, Multidimensional Perceived Social Support scale and UCLA Loneliness Scale.

Results: Comparative Analysis revealed that there were significant differences between Internet Addiction and Non Internet Addiction groups of female college students in the areas of Stress, Loneliness and Family Support. Bivariate correlation analysis showed a positive relationship of Internet Addiction with Stress and Loneliness. However there emerged a negative correlation between Internet Addiction and Family Support.

Conclusion: Our study holds heuristic value for elucidating the potential impact of low family support and heightened stress due to plethora of reasons may increase vulnerability to Internet Addiction among female college students. We can conclude that young adults with insufficient or conflictual family interaction triggers emotional loneliness resulting in either social withdrawal or search for needed relationships in the Internet environment. Hence, family support is an important factor in treating and preventing Internet addiction.

Keywords: *Internet Addiction, Stress, Loneliness, Social Support, College Students.*

Introduction

Internet Addiction (IA) refers to excessive or poorly controlled preoccupations, urges, or behaviors regarding Internet use, which eventually could lead to distress and functional impairment^[1]. In the fifth edition of the DSM, Internet addiction is equated with the addiction to Internet games, although some research shows that

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they should be viewed as separate entities^[2]. Internet addiction has been shown to be related to depression, anxiety, aggression, sleep disturbance, Attention Deficit Hyperactivity Disorder (ADHD) and alcohol dependence^[3]. Compulsive Internet users show different activity patterns in regions of the brain that have been implicated in reward and emotion processing with decreased grey matter volume in several regions^[4].

Research on excessive internet use and associated behavioral problems has grown dramatically in the last few decades. A recent review of more than 103 studies found that over 12% of male students and 5% female students in China showed signs of Internet addiction^[5]. In a study among 810 undergraduate Indian college students aged of 19 -21 years, reported the prevalence rate of IA as 8.8% (10.33% males and 6.87% females)^[6]. Studies in different countries have generated widely different estimates owing to different study designs, varied diagnostic criteria, diverse assessment measures, cultural backgrounds and study samples.

Internet addiction is significantly associated with factors such as availability of own personal gadgets, use of smartphones, exposure to internet at a very young age, internet usage for the purpose of exploring new things and building new relationships online^[7]. Adolescents have been identified as an at-risk population as they tend to be more prone to risky behavior and can indulge in addictive practices in order to cope with anxiety, frustration and failure or need for excitement, unrealistic optimism in relation to the feeling of invulnerability, or even the need to achieve their goals as a part of their transition into adult age^[8]. Since most studies from India have reported higher prevalence of IA in males^[9, 10], so there are lacunae of studies examining this phenomenon exclusively in female students. It is pertinent to examine the association of Internet addiction and differential psychosocial correlates in this vulnerable developmental phase of young adulthood for the purpose of detecting early warning signs of underlying psychopathology and to formulate effective interventions.

Objectives:

1. To identify possible differences between Internet Addiction and Non Internet Addiction groups on psychological variables of Social Support, Loneliness and Stress.
2. To study the relationship between Internet Addiction and the psychological variables of Social Support, Loneliness and Stress.

Methodology

Sample: It was a cross sectional study and purposive sampling technique was used to select 200 undergraduate female students within the age range of 18-21 years drawn from colleges pertaining to Chandigarh region. The subjects belonging to nuclear families and middle income group in order to control the effect of socioeconomic variables.

Procedure: The testing schedule was started with participants filling details about their socio-demographic and Internet User characteristics after explaining the nature and purpose of the study. Written informed consent was taken from them and were conveyed that their participation was voluntary. The data gathered would be confidential to be used only for research purpose. Internet Addiction Test (IAT) was used as a screening measure to identify internet dependence. Data was collected from those college students using internet for at least since last 6 months. The selected sample comprised out of 100 dependent users and 100 non - dependent users of internet (as per Young's criteria of IA).

Assessment Tools:

1. **Socio-Demographic Profile:** included questions on socio-demographic and Internet User characteristics of the participants such as age, marital status, educational qualifications, family type, family socioeconomic status, purpose of internet usage, age of internet usage initiation, time spent online per day and frequency of Internet use per week in days.
2. **Internet Addiction Test (IAT)**^[11]: The IAT is a self-reported measure comprising 20 items rated on a 5-point scale determining the degree to which their Internet use affects their daily routine, social life, productivity, sleeping pattern and feelings. The IAT total score ranges from 20 to 100, with higher scores representing higher severity of Internet compulsivity and addiction. The participants were allocated into either the IA group (IAT score ≥ 40) or the Non IA group (IAT score < 40)^[12]. Internal consistency (0.88), test-retest reliability (0.82) and bisection (0.72) are satisfactory.
3. **Perceived Stress Scale (PSS- 10)**^[13]: The PSS consists of 10 items rated on a 5-point scale designed to measure the perception of stress and degree to which situations in one's life are appraised as stressful during the last month.

- 4. UCLA (University of California, Los Angeles) Loneliness Scale^[14]:** The UCLA includes 20 statements rated on a 4-point Likert scale which reflects how lonely people define their lives. Cronbach’s alpha coefficient was found 0.90 in this study.
- 5. Multidimensional Perceived Social Support^[15]:** The MSPSS is a 12-item scale that measures perceived support from three domains: Family (FA), Friends (FR) and a significant Other (SO) rated on a 7-point Likert-type scale. Cronbach’s alpha coefficients for FA, FR and SO were .82, .86 and .86, respectively.

Statistical Analysis: Considering the objectives of the study, descriptive analysis, Independent sample t-test and Pearson Product Moment Correlation was computed using SPSS Statistics Version 21.

Results

A descriptive analysis of the sociodemographic and Internet user’s characteristics revealed that the mean age of these students was 19.58 years(± 1.20) and all of them were unmarried. Majority of them primarily used the Internet for pleasure activities including social networking sites, entertainment, online shopping and online gaming. Pertinent findings in this study were earlier than expected age of internet usage initiation

was 13 years, time spent online per day was 4-6 hours, frequency of Internet use per week was everyday and 26-30 hours per week.

A perusal of Table 1 revealed a statistically significant difference between IA Group (N =100) and Non IA Group (N =100) in the areas of Stress (t = 2.82; p = 0.01) and Loneliness (t = 4.54; p = 0.01) with higher scores in IA Group and in the sub domain of Social Support, i.e., Family Support (t = 3.20; p = 0.01) with higher scores in Non IA Group. A perusal of Table 2 shows correlation analysis between Internet Addiction and the psychological variables. Correlation analysis showed a positive significant association between IA with Stress (r =0.417; p = 0.01) and IA with Loneliness (r =0.290; p = 0.01). However there emerged a negative significant correlation between IA and sub domains of Social Support, i.e., Family Support (r =-0.368; p=0.01). Results also showed a positive significant correlation between Stress and Loneliness (r = 0.215; p = 0.05) but a negative significant correlation between Stress and sub domains of Social Support, i.e., Family Support (r = -0.262; p = 0.01). As expected, there emerged a negative significant correlation between Loneliness and sub domains of Social Support, i.e., Significant Other (r = -0.339, p =0.01), Family Support (r = -0.289; p = 0.01), Friends (r = -0.432; p = 0.01) and total score of social support (r = -0.414; p = 0.01).

Table 1: Shows descriptive analysis and comparative analysis of Internet Addiction and Non Internet Addiction groups on psychological variables of Social Support, Loneliness and Stress

Variables	Internet Addiction Group (N = 100)	Non Internet Addiction Group (N = 100)	t-ratio
	Mean ± SD	Mean ± SD	
Total Social Support	5.13 ±1.40	5.48 ±1.167	1.12
Significant Other Support	5.34 ±1.86	5.11 ±1.66	0.63
Family Support	4.77 ±1.68	5.87 ±1.17	3.20**
Friends Support	5.23 ±1.44	5.50 ±1.24	0.82
Stress	23.17 ±7.19	18.15 ±7.01	2.82**
Loneliness	51.08 ±12.07	44.13 ±9.41	4.54**

* Significant at 0.05 level
 ** Significant at 0.01 level

Table 2: Shows Correlation Analysis between Internet Addiction and psychological variables of Social Support, Loneliness and Stress

Variables	Stress	Internet Addiction	Loneliness
Stress	1		
Internet Addiction	0.417**	1	
Loneliness	0.215*	0.290**	1
Significant OtherSupport	0.035	0.097	-0.339**
FamilySupport	-0.262**	-0.368**	-0.289**
Friends Support	-0.171	-0.035	-0.432**
Total Social Support	-0.139	-0.101	-0.414**

* Significant at 0.05 level

** Significant at 0.01 level

Discussion

The present study aims to enhance our understanding of Internet Addiction (IA) among female college students and its relationship with psychosocial correlates of social support, stress and loneliness. Results revealed that Non IA group reported higher scores in the area of Family Support and a negative correlation exists between IA and Family Support. This crucial finding cannot be overlooked in this particular age group and gender specific research, that only lack of family support exacerbated Internet addiction among female college students which could be attributed to plethora of reasons such as inadequate emotional support, high discipline, intense conflicts, low expressiveness, maladaptive parental rearing styles, low family functionality^[16], low perceptions of social support from family, divorced families, low-income families, severely dysfunctional families^[17]. Paradoxically with pre-existing problematic familial relations in these young adults would make treatment difficult. Another pertinent rationale for low family support provided to female young adults can be attributed to gender discrimination and rampant sexism in Punjab.

The present study also found that IA group reported higher scores in the area of Loneliness and a positive correlation exists between IA and Loneliness indicating that female young adults who are predisposed to or are engaged in addictive use of internet primarily to gain social approval, enhancement of self-esteem, overcoming feelings of loneliness, boredom, helplessness, anxiety and depression which can be achieved compensatively within online social environment. In a meta-analysis

examining 94 studies conducted in 22 countries also proved a correlation between depression, loneliness and Internet addiction^[18].

Our study revealed that IA group reported higher scores in the area of Stress and a positive correlation exists between IA and Stress. Besides numerous benefits of this ubiquitous technological tool, problematic Internet use is strongly associated with low impulse control and resulting in increased feelings of tension or arousal if there is lack of easy accessibility of computers or internet availability. Excessive Internet use is associated with a gamut of negative life consequences for college students undergoing major life changes and stressful life circumstances including low self esteem, relationship problems, lack of effective communication within family environment, academic stress^[19] and social anxiety^[20] and peer pressure, etc.

The present study reported a negative association of Loneliness with Social Support (Significant Other, Family Support, Friends); negative correlation between Stress and Family Support; and positive correlation between Stress and Loneliness. Loneliness is linked with Internet use due to the tendency for withdrawal from real life experiences since the individual might think that his current relationships do not meet his expectations^[21]. Research evinces that people who were lonely with deficient social skills can develop compulsive Internet usage behaviors which prevents them from developing healthy social relationships in their daily life^[22]. At this developmental stage, peer group becomes an important source of social support as they seek to individuate from family. But low social support from family decreases

a student's ability to proactively and reactively cope with the academic or other significant life stressors and can negatively impact their quality of life. Research suggests that compulsive Internet usage increased levels of depression, stress and loneliness^[23].

Limitations: The limitations include cross-sectional design which precludes making a causal link, purposive sampling technique, self report measures and gender specific sample (restricted to females) may limit generalization of findings. Longitudinal design based research can be conducted in future to formulate comprehensive preventive strategies.

Conclusion

The present study holds significant heuristic value for future research by providing a comprehensive empirical research finding to understand the psychosocial underpinnings of Internet Addiction among female college students. A multidisciplinary team including social and mental health agencies must collaborate to provide a holistic management of IA and formulation of preventive measures remain critical to illuminate parents and educational institutions in curbing Internet-related problems early and effectively in college students.

Conflicts of Interest: Nil

Financial Support and Sponsorship: Nil

Ethical Clearance: There is no Institutional Ethics Committee. Written informed consent was taken from all students who participated in the study

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