



The Covert Sway of Internet Addiction on the Self-Esteem of Late Adolescents

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Abstract

From being a technological luxury to inescapable daily need, in less than a generation, the internet represents a truly socio-economic disruptor. Problematic computer use is a growing social issue which is being debated worldwide. This study aimed to examine the relationship of self-esteem and internet addiction among late adolescents. The sample of the online study consisted of 300 late adolescents from 18-25 years adolescents. Internet Addiction Test by Dr. Kimberly S. Young and Rosenberg's Self-Esteem inventory were used as data collection instruments. Obtained data were analysed using the SPSS package, through Pearson's Product-Moment correlation coefficient. The findings showed that Self-Esteem of adolescents was significantly and strongly negatively correlated with Internet Addiction. These results implied that those with lower levels of self-esteem had higher levels of Internet addiction. The results were further discussed, and some conclusions were made.

Keywords: Self-esteem, Internet Addiction, Adolescents.

Introduction

Technological advancements have been scaling heights in the present day. The usage of technological support and efficiency is a mandate to keep updated and upgraded prolifically. The usage of mobile phones and internet has thus placed an indispensable need in the personal, social and professional life of the people, the adolescents of the age are not only technology driven but also technologically connected and motivated. Though this is seen as a progressive development scientifically, a big question of its threat to the psychological constructs of human personality, especially adolescents. Studies have shown a regression of important psychological constructs, especially self-esteem with the increased usage of internet usage, in adolescents. Though studies show evidence to the association, specific studies pertaining to these variables are in need for greater light, owing to the cross-cultural factors that bind and interplay in the expression of this viable psychological construct of self-esteem. Hence this study is to establish an understanding of any association between self-esteem and internet addiction in the late adolescents, aged 18-25 years, at the micro level.

Review of Literature

a) Review of Studies on Self-Esteem and Internet Addiction

Research examining self-esteem and internet addiction largely indicates a negative relationship between the two, suggesting

that lower self-esteem is often associated with higher levels of internet addiction.

Early evidence by Batra (2020), involving 300 adolescents and young adults in Haryana, confirmed that individuals with lower self-esteem reported greater internet addiction. The study emphasized that strengthening self-esteem may help reduce problematic internet use. Similar findings emerged from Bangalore, India, where Ezech and Ezeanya (2021) studied 90 young adults and identified a weak but significant negative correlation, indicating that increased internet addiction corresponded with lower self-esteem.

Studies conducted among adolescents further reinforced this pattern. Stefani and Tiatry (2021), studying 215 adolescents during the COVID-19 pandemic, found that self-esteem negatively influenced internet addiction tendencies, accounting for 14.1% of the variation. Adolescents with stronger self-esteem demonstrated lower vulnerability to excessive internet use.

Cross-cultural research expanded these findings. Seabra and colleagues (2017) and Joy (2023), studying 1,399 Portuguese and Brazilian internet users aged 14-83 years, reported a consistent negative correlation between self-esteem and internet addiction. Regression analyses showed that low self-esteem explained 11% of internet addiction, while emotional consequences of internet addiction such as withdrawal and concealment contributed to reduced self-esteem. Young users, males, and Brazilian participants showed comparatively

higher addiction levels.

Studies among adults reveal comparable trends. Balci and Tecimer (2023), studying 528 adults, found that higher self-esteem was associated with lower internet and social media addiction. Their findings suggest that internet addiction not only relates to self-esteem but may also significantly predict self-worth.

However, not all findings are entirely consistent. Chettiar and Malik (2022), studying Indian youth, found that internet addiction reflected social anxiety but not self-esteem. Likewise, Ayas and Horzum (2013) reported that although self-esteem was negatively related to internet addiction, depression and loneliness were stronger predictors, making self-esteem a comparatively weaker independent factor.

Overall, the reviewed literature demonstrates a predominant pattern in which low self-esteem functions as a risk factor for internet addiction, although its predictive strength varies depending on psychological and social contexts.

b) Review of Studies on Psychological Factors Related to Internet Addiction

Research increasingly recognizes internet addiction as a phenomenon shaped by multiple psychological variables, particularly depression, anxiety, loneliness, shyness, and self-esteem.

Depression consistently emerges as one of the strongest correlates. Bahrainian *et al.* (2014) and Seabra *et al.* (2015), studying university students, reported significant relationships between depression, self-esteem, and internet addiction. Their findings suggested that both depression and self-esteem significantly predicted internet addiction. Similarly, Rubaiyat *et al.* (2019), studying 461 undergraduates in Dhaka, demonstrated an interconnected relationship among internet addiction, depression, and low self-esteem, proposing predictive models to reduce these psychological difficulties.

Further evidence from India was provided by Salunkhe and Shete (2022), whose study among urban and rural students found high levels of depression, anxiety, and stress among internet users. Rural students particularly showed stronger depressive tendencies, although most participants maintained average self-esteem.

Depression and loneliness were also highlighted as central psychological mechanisms. Ayas and Horzum (2013) found that depression, loneliness, and self-esteem together significantly related to internet addiction, with depression emerging as the strongest predictor. Similarly, Kumar and Mondal (2018) reported that anxiety, depression, and interpersonal sensitivity strongly correlated with internet addiction among college students, negatively affecting social and family relationships.

Longitudinal studies provide insight into causal pathways. Yu Tian and colleagues (2021), following 1,047 adolescents across 12 months, found that loneliness and depression predicted later internet addiction, while internet addiction also intensified subsequent loneliness and depression. Interestingly, self-esteem appeared more as an outcome of internet addiction than a direct antecedent.

Personality-related variables have also received attention. Sariyska *et al.* (2014), conducting a multinational study across eight countries, found that self-directedness—a personality trait linked to self-regulation—was negatively associated with internet addiction. Individuals with greater self-direction appeared more capable of resisting addictive internet behaviors. Supporting this, Naseri and Mohamadi found that shyness mediated the relationship between self-esteem and

internet addiction, suggesting that low self-esteem combined with shyness heightens vulnerability.

Social anxiety represents another important psychological factor. Chettiar and Malik (2022) found that internet addiction significantly reflected social anxiety among Indian youth. Likewise, Kircaburun (2016) demonstrated that while self-esteem and internet use directly influenced depression, social media addiction affected depression indirectly, highlighting the complex psychological pathways involved.

Taken together, these studies portray internet addiction as closely intertwined with emotional distress, personality traits, and psychological vulnerabilities, with self-esteem interacting alongside depression, loneliness, shyness, and anxiety rather than operating in isolation.

c) Review of Studies on Social Factors Related to Internet Addiction

Beyond individual psychology, research highlights the important role of family, social relationships, emotional support, and lifestyle factors in shaping internet addiction and self-esteem.

Family environment emerges as a particularly influential factor. Shi and Tang (2023), studying over 3,000 Chinese adolescents, found that self-esteem, anxiety, and depression mediated the relationship between family atmosphere and internet addiction. Among these pathways, the route linking family atmosphere → self-esteem → internet addiction was most influential, suggesting that supportive family environments foster healthier self-esteem and reduce addiction risk.

The role of perceived emotional support through social networking has also been explored. Mishra and Dangwal (2021) examined age, family structure, parental work status, self-esteem, and internet addiction among adolescents and college students. While self-esteem and internet addiction showed no significant correlation with perceived emotional support, college students reported greater emotional support through social networking, and age emerged as the strongest predictor.

Social networking behaviors themselves may influence well-being differently across cultures. Błachnio and Przepiorka (2019), comparing Italian and American Facebook users, found that internet addiction consistently related to higher Facebook intrusion and lower self-esteem in both countries. However, the relationship with life satisfaction differed culturally, demonstrating that social media experiences are not universally interpreted.

Lifestyle and academic functioning are also implicated. Ketata and colleagues (2021), studying engineering students in Tunisia, reported high prevalence of internet addiction, insomnia, and low self-esteem. Internet addiction was associated with depressive mood, insomnia, academic failure, and unhealthy behaviors such as excessive online time and substance use. The findings suggest that internet addiction extends beyond psychological discomfort and may influence academic and social functioning.

Adolescent social identity and family relationships also play a role. Thakur and Suleria (2018) found that adolescents' general, social, and family-home self-esteem were negatively associated with internet addiction. Importantly, social self-esteem and family-related self-esteem emerged as significant predictors, indicating that supportive interpersonal and family relationships may serve as protective factors.

Overall, the literature suggests that internet addiction is not solely an individual behavioral issue but is embedded within

family climate, social connectedness, emotional support systems, and lifestyle contexts. Self-esteem appears to function as a bridge linking these social environments to patterns of internet use.

Need for the Study

Self-esteem is an important psychological tenet which plays a major role in the life of an adolescent. The study is a preliminary exploration into the association of self-esteem and internet addiction among the late adolescents owing to the increasing demand and inclination to internet use, thus developing a dependence on it. Though there are other studies of a similar nature the preliminary study is done with the aim of exploring the existence of an association among the late adolescents, given the diverse socio-political and cultural diversities which India embodies.

Methodology

Sample Description

Three hundred college students, between 18-25 years of age participated in the current study. The sampling was simple random sampling.

Hypothesis

- There will be no significant relationship between self-esteem and internet addiction among the late adolescents of 18-25 years.

Inclusion Criteria

- Only college students were chosen for the study.
- Only age groups between 18-25 years were included in the study.

Exclusion Criteria

- College students below 18 years and above 25 years were not included in the study.
- Late adolescents who were cognitively challenged and not literate were excluded.

Measures

Young's Internet Addiction Test (IAT) by Young [1], Rosenberg's Self-Esteem Scale [2] are the three measures used in the current study.

Young's Internet Addiction Test (IAT) has 20 items associated with Internet use, including psychological dependence, compulsive use, withdrawal symptoms and related problems of school, sleep, family and time management. For each item, a graded response can be selected (1 = "not at all" to 5 = "always"). The minimum score is 20. The maximum is 100; the higher the score, the greater the level of Internet addiction.

Rosenberg Self-Esteem Scale is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. Five of the items have positively worded statements and five have negatively worded ones. The scale measures state self-esteem by asking the respondents to reflect on their current feelings. The RSES is considered a reliable and valid quantitative tool for self-esteem assessment.

Procedure

College students were approached online for their participation and were informed about the relevant ethical

issues. Following this, respondents were asked to rate their responses for all the scales used in this study. The responses were scored, interpreted and statistically analysed.

Data Analysis

The obtained data analyzed through SPSS 17.0 software. The relationship between adolescents' self-esteem and Internet addiction was investigated through Pearson-Product-Moment correlation coefficient for total sample ($N=300$).

Results and Discussion

Karl Pearson Product Moment Correlation method was computed to ascertain connectedness and relatedness among the variables of self-esteem and internet addiction considered under study. All the analysis under this section is reported in the form of correlation matrices. The data about the relationship between self-esteem and internet addiction is presented in the table 1.

Table 1: Shows the correlation between self-esteem and internet addiction.

		Section A	Section B
Section A	Pearson Correlation	1	-.670**
	Sig(2 tailed)		.002***
	N	300	300
Section B	Pearson Correlation	-.670**	1
	Sig(2 tailed)	.002***	
	N	300	300

** Correlation significant at 0.01 level

*** $p < .01$

The correlation analysis revealed a significant strong negative relationship between self-esteem and internet addiction ($r = -.670$, $p < .001$). This indicates that as internet addiction increases, self-esteem tends to decrease, and conversely, adolescents with higher self-esteem tend to report lower levels of internet addiction.

Therefore, the null hypothesis stating that *there will be no significant relationship between self-esteem and internet addiction among late adolescents aged 18–25 years is rejected.*

The obtained correlation coefficient ($r = -.670$) demonstrates a substantial inverse association between the two variables. Thus, self-esteem appears to be meaningfully linked with internet addiction among late adolescents of 18-25 years.

The present findings are strongly supported by the reviewed literature, which predominantly reports a negative association between self-esteem and internet addiction. Batra (2020), studying adolescents and young adults, found that lower self-esteem was associated with greater internet addiction and suggested that strengthening self-esteem may reduce problematic internet use. Similarly, Ezech and Ezeanya (2021) reported a significant negative relationship among young adults in Bangalore, although their findings indicated a comparatively weaker association.

The present findings appear more robust than those reported by Ezech and Ezeanya (2021), possibly due to the larger sample size ($N = 300$) employed in the current study. A larger sample generally provides greater statistical stability and may explain the stronger relationship observed.

Further support emerges from studies conducted during and beyond the COVID-19 period. Stefani and Tiatry (2021) found that self-esteem negatively influenced internet addiction

tendencies among adolescents, accounting for 14.1% of variance. Likewise, Seabra *et al.* (2017) and Joy (2023), in cross-cultural studies involving Portuguese and Brazilian internet users, identified a consistent negative correlation between self-esteem and internet addiction, demonstrating that low self-esteem contributed significantly to problematic internet use.

Studies among adults also reflect comparable findings. Balci and Tecimer (2023) reported that higher self-esteem was associated with lower internet and social media addiction, suggesting that excessive online engagement may influence not only behavioral functioning but also personal self-worth.

Although the majority of studies support this negative relationship, some findings reveal variations in predictive strength. Chettiar and Malik (2022) found that internet addiction reflected social anxiety more strongly than self-esteem among Indian youth. Likewise, Ayas and Horzum (2013) reported that while self-esteem was negatively associated with internet addiction, depression and loneliness emerged as stronger predictors. These findings suggest that self-esteem may not operate independently but rather interacts with broader emotional and psychosocial factors.

The review of literature further demonstrates that internet addiction is embedded within a wider psychological framework involving depression, anxiety, loneliness, and shyness. Bahrainian *et al.* (2014), Seabra *et al.* (2015), and Rubaiyat *et al.* (2019) reported significant interrelationships among depression, low self-esteem, and internet addiction, with depression and self-esteem jointly predicting internet addiction. Similarly, Salunkhe and Shete (2022) identified elevated depression, anxiety, and stress among student internet users.

Longitudinal findings further strengthen these interpretations. Yu Tian *et al.* (2021) demonstrated that loneliness and depression predicted later internet addiction while internet addiction simultaneously intensified subsequent loneliness and depressive symptoms. Such findings suggest a potentially reciprocal relationship in which emotional distress and problematic internet use reinforce one another over time.

Personality and emotional factors also appear influential. Naseri and Mohamadi found that shyness mediated the relationship between self-esteem and internet addiction, suggesting that adolescents with lower self-esteem may become increasingly vulnerable to internet addiction when accompanied by social inhibition or interpersonal discomfort. Likewise, Sariyska *et al.* (2014) found that self-directedness and self-regulation negatively related to internet addiction, highlighting the importance of psychological resilience and self-control.

The social context surrounding adolescents further enriches understanding of the present findings. Shi and Tang (2023) demonstrated that self-esteem, anxiety, and depression mediated the relationship between family atmosphere and internet addiction, with the pathway involving self-esteem showing particular significance. This suggests that supportive family environments may indirectly reduce internet addiction by strengthening adolescent self-esteem.

Similarly, Thakur and Suleria (2018) reported that general, social, and family-home self-esteem were negatively associated with internet addiction, with family-related and social self-esteem emerging as significant predictors. These findings highlight that adolescents' internet behaviour cannot be understood solely as an individual phenomenon but must also be examined within family and social environments.

Research further indicates that internet use may at times serve

compensatory emotional and social functions. Mishra and Dangwal (2021) found that college students perceived greater emotional support through social networking, while Blachnio and Przepiorka (2019) observed that online interaction and life satisfaction may vary across cultural contexts. These findings suggest that adolescents may increasingly rely on internet and social media platforms for emotional connection, belongingness, and social validation.

Nevertheless, excessive internet involvement may carry significant psychosocial consequences. Ketata *et al.* (2021) found strong associations between internet addiction, insomnia, depressive mood, academic difficulties, and reduced self-esteem. Such evidence suggests that prolonged and uncontrolled internet use may adversely affect intrapersonal functioning, interpersonal relationships, and academic performance.

Thus, the findings of the present study, together with previous empirical evidence, indicate that self-esteem and internet addiction are strongly and negatively correlated among late adolescents. Adolescents with lower self-esteem may be more vulnerable to excessive internet engagement, possibly using online environments to compensate for emotional distress, loneliness, social anxiety, or unmet relational needs.

Accordingly, interventions aimed at promoting healthy internet use should not focus exclusively on behavioral regulation but also address underlying psychological and social dimensions. Self-esteem enhancement programs, counselling interventions, family-support initiatives, and social-support mechanisms may help reduce vulnerability to internet addiction among adolescents. Since the relationship between self-esteem and internet addiction appears multifaceted and embedded within broader psychosocial systems, further research employing longitudinal and intervention-based designs is recommended to generate deeper insights into this increasingly relevant area among late adolescents.

Scope for Future Research

- The sample size can be larger to suit generalisability on a larger scale.
- More demographic variables can be studied.
- Wider range of participants can be included

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