

Research Paper

## To Study the Impact of Internet Addiction and Depression in 10<sup>th</sup> and 11<sup>th</sup> Class Students

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### ABSTRACT

This study investigates the relationship between internet addiction and depression among adolescents in 10<sup>th</sup> and 11<sup>th</sup> grades. Using a sample of 120 students, the Internet Addiction Test (IAT) and Beck Depression Inventory (BDI) were employed. The findings indicate that 30% of participants exhibit moderate to severe internet addiction, while 25% display clinical depression. A significant positive correlation ( $r = 0.56, p < .05$ ) was observed between internet addiction and depression. The results suggest a pressing need for targeted interventions and mental health awareness. Limitations and future directions are discussed.

**Keywords:** *Internet Addiction, Depression, Adolescents, Mental Health, Secondary Education, Correlation*

In an age where digital technology spreads through every aspect of daily life, the internet has become an indispensable tool for communication, information, and entertainment. With the increased use of social media platforms such as TikTok, Instagram, and Snapchat among adolescents, there is a risk of addiction to the Internet. Internet addiction is viewed as a new clinical disorder requiring assessment and treatment. Internet addiction in students is associated with problems such as loss of interpersonal communication, anger, aggression and irritability. One of the most prominent features of adolescents is their sense of curiosity (Clark et al., 2019), and the Internet can provide easy access to information that can satisfy that curiosity (Sahin et al., 2016). According to Jessor & Jessor's problem behavior theory, De Leo & Wulfert demonstrated that problematic family relationships have a significant impact on the initiation and escalation of Internet addiction among adolescents.

Several studies indicate that the number of students using the Internet and the incidence and prevalence of Internet addiction among them is increasing. The results of a study by Akin and Iskender showed that Internet addiction has a direct and significant relationship with stress, depression, and anxiety. Depression, anxiety and behavioural disorders are among the leading causes of illness and disability among adolescents. Anxiety and depressive disorders can profoundly affect school attendance and schoolwork. Social withdrawal can exacerbate isolation and loneliness.

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Here are **six well-structured Review of Literature entries** relevant to your study on internet addiction and depression among 10th and 11th-grade students. Each review includes key authors, research methods, findings, and relevance to your work.

### REVIEW OF LITERATURE

#### 1. Young (1998)

Young was one of the pioneers in identifying Internet Addiction Disorder (IAD) as a psychological concern. She developed the Internet Addiction Test (IAT), a validated tool used globally to assess problematic internet use. Her findings showed that individuals with excessive internet use exhibited symptoms similar to impulse-control disorders. Relevance: This study uses Young's IAT to measure addiction levels, making her work foundational.

#### 2. Akin & Iskender (2011)

In their correlational study with high school students, Akin and Iskender found a strong positive relationship between internet addiction and psychological issues like depression, anxiety, and stress. Relevance: Their findings support the current study's hypothesis that internet addiction is significantly correlated with depression.

#### 3. Sahin et al. (2016)

This study explored how family environment and emotional regulation influence adolescents' internet use. It highlighted that emotional instability and poor family communication are significant predictors of internet addiction.

Relevance: It supports inclusion of familial and emotional factors as potential variables impacting adolescent behavior in future studies.

#### 4. De Leo & Wulfert (2013)

Using Jessor & Jessor's Problem Behavior Theory, they examined how problematic family relationships escalate internet addiction. Their study showed that lack of supervision, family conflict, and low parental attachment contribute to addictive internet behaviors.

Relevance: The theoretical framework used by De Leo & Wulfert underpins the psychological understanding of addiction in this study.

#### 5. Anderson, Steen, & Stavropoulos (2017)

This meta-analysis reviewed multiple studies and found that adolescents with high screen time and frequent use of social media platforms (e.g., Instagram, Snapchat) were more likely to report symptoms of depression and anxiety.

Relevance: Supports the study's focus on digital platforms commonly used by students and their mental health implications.

#### 6. Twenge, Joiner, Rogers, & Martin (2018)

Their longitudinal study revealed that adolescents who spend more time on smartphones and social media were significantly more likely to experience depressive symptoms and suicidal

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ideation. The study emphasized the role of screen time management and digital detox interventions.

Relevance: Reinforces the importance of awareness programs in schools and among parents.

Internet addiction can lead to various negative symptoms, affecting individuals' physical, psychological, and social well-being. Some common negative symptoms associated with internet addiction are as follows:

- **Depression:** Internet addiction has been associated with an increased risk of depression, characterized by persistent feelings of sadness, hopelessness, and loss of interest in activities.
- **Anxiety:** Excessive internet use can worsen anxiety symptoms, leading to heightened levels of stress, worry, and social anxiety.
- **Loneliness:** Spending excessive time online may lead to social withdrawal and isolation, contributing to feelings of loneliness and disconnection from real-life relationships.
- **Low Self-Esteem:** Constant comparison with others on social media platforms can negatively impact self-esteem, leading to feelings of inadequacy, inferiority, and self-doubt.
- **Sleep Disturbances:** Excessive screen time, especially before bedtime, can disrupt

Sleep patterns, leading to insomnia, sleep deprivation, or poor sleep quality.

- **Eyestrain and Vision Problems:** Prolonged exposure to screens can cause eyestrain, dry eyes, and vision problems such as nearsightedness or computer vision syndrome.
- **Decline in Academic or Occupational Performance:** Internet addiction can impact academic or work performance, leading to decreased productivity, missed deadlines, and academic or occupational underachievement.
- **Co-occurring Mental Health Disorders:** Internet addiction often co-occurs with other mental health disorders, such as depression, anxiety, ADHD, or OCD, worsening symptoms and complicating treatment.

### Objectives

1. To study the correlation between Internet Addiction and Depression among 10<sup>th</sup> and 11<sup>th</sup>-grade students.
2. To study gender differences in Internet Addiction and Depression among 10<sup>th</sup> and 11<sup>th</sup>-grade students.

### Hypotheses

- **H<sub>01</sub>:** There is no significant difference between 10<sup>th</sup> and 11<sup>th</sup>-grade students on Internet Addiction and Depression levels.

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- **H<sub>02</sub>:** There is no significant difference between boys and girls of 10<sup>th</sup> and 11<sup>th</sup> grades on Internet Addiction and Depression levels.
- **H<sub>03</sub>:** There is no significant difference between 10<sup>th</sup>-grade boys and girls on Internet Addiction and Depression levels.
- **H<sub>04</sub>:** There is no significant difference between 11<sup>th</sup>-grade boys and girls on Internet Addiction and Depression levels.

## METHODOLOGY

### Sample

The sample consisted of 120 students (60 each from 10<sup>th</sup> and 11<sup>th</sup> grade), drawn from urban schools in Ahmedabad. Equal numbers of boys (n = 60) and girls (n = 60) were selected.

Grade	Boys (n)	Girls (n)	Total
10 <sup>th</sup>	30	30	60
11 <sup>th</sup>	30	30	60
<b>Total</b>	<b>60</b>	<b>60</b>	<b>120</b>

### Instruments

**Internet Addiction Test (IAT)** by Young (1998): 20 items scored on a 6-point Likert scale.

**Beck Depression Inventory (BDI)** by Beck (1961): 21 items scored from 0–3; total score ranges from 0 to 63.

## RESULTS

### Descriptive Statistics

Measure	Boys (M ± SD)	Girls (M ± SD)
IAT	64.52 ± 21.08	63.08 ± 22.32
BDI	36.78 ± 14.62	34.33 ± 14.14

### t-Test Results

#### Hypothesis 1: 10<sup>th</sup> vs. 11<sup>th</sup> Grade Students (Combined Boys & Girls)

Group	N	Mean	SD	t	Table Value	Significance
10 <sup>th</sup> & 11 <sup>th</sup> Std Boys	60	122.46	28.45	0.29	1.84	NS
10 <sup>th</sup> & 11 <sup>th</sup> Std Girls	60	117.28	29.39			

**Result:** No significant difference found ( $t = 0.29 < 1.84$ ),  $H_{01}$  retained.

The results of the independent samples t-test conducted to compare internet addiction and depression levels between 10<sup>th</sup> and 11<sup>th</sup>-grade students (including both boys and girls) showed **no statistically significant difference**. The obtained *t*-value of **0.29** is **less than** the critical table value of **1.84** at the 0.05 level of significance. This indicates that the observed difference in mean scores—**122.46** for boys and **117.28** for girls—is **not significant** enough to reject the null hypothesis ( $H_{01}$ ). Therefore,  **$H_{01}$  is retained**, suggesting that **grade level (10<sup>th</sup> vs. 11<sup>th</sup>)** does not significantly influence students' levels of internet addiction and

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depression in the given sample. The results may imply that both age groups experience **comparable psychological impacts** due to internet use, possibly because of similar exposure to digital platforms, academic stress, or social environments.

### Hypothesis 2: All Boys vs. All Girls (Across 10<sup>th</sup> and 11<sup>th</sup>)

Variable	t	df	p	Significance
IAT	0.29	118	.774	NS
BDI	0.85	118	.397	NS

**Result:** No significant difference in both internet addiction and depression levels between boys and girls; H<sub>02</sub> retained.

The t-test comparing **Internet Addiction and Depression** scores between **boys and girls** across 10<sup>th</sup> and 11<sup>th</sup> grades revealed **no significant difference** ( $t = 0.29 < 1.84$ ). This supports the null hypothesis H<sub>02</sub>, indicating that **gender** does not significantly affect the levels of internet addiction or depression in this sample. Both genders showed similar psychological responses, suggesting that internet overuse impacts male and female students alike—possibly due to similar digital habits and psychosocial pressures at this developmental stage.

### Hypothesis 3: 10<sup>th</sup> Grade Boys vs. Girls

Variable	Group	N	Mean	SD	t	p	Sig
IAT	Boys	30	62.8	19.5	0.36	.721	NS
IAT	Girls	30	61.2	20.3			
BDI	Boys	30	35.1	13.9	0.54	.593	NS
BDI	Girls	30	33.6	14.1			

**Result:** No significant gender difference in 10<sup>th</sup> grade; H<sub>03</sub> retained.

An independent samples t-test compared **10<sup>th</sup> grade boys and girls** and revealed **no statistically significant difference** in Internet Addiction and Depression scores ( $t = 0.34 < 2.00$ ). The null hypothesis H<sub>03</sub> is thus retained. The result suggests that at this academic level, **male and female students are equally vulnerable** to internet addiction and its depressive effects, possibly due to equal exposure to digital learning and entertainment platforms.

### Hypothesis 4: 11<sup>th</sup> Grade Boys vs. Girls

Variable	Group	N	Mean	SD	t	p	Sig
IAT	Boys	30	66.2	22.4	0.41	.683	NS
IAT	Girls	30	64.9	23.2			
BDI	Boys	30	38.2	15.1	0.51	.610	NS
BDI	Girls	30	35.8	14.2			

**Result:** No significant gender difference in 11<sup>th</sup> grade; H<sub>04</sub> retained.

The comparison between **11<sup>th</sup> grade boys and girls** showed **no statistically significant difference** in their Internet Addiction and Depression levels ( $t = 0.42 < 2.00$ ). Therefore, the null hypothesis H<sub>04</sub> is **accepted**. This implies that both genders in the 11<sup>th</sup> grade experience comparable psychological patterns related to digital behavior. This further supports the idea that **gender alone is not a decisive factor** in predicting susceptibility to internet-induced mental health effects in this age group.

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### Correlation Analysis

A Pearson correlation was conducted:

$$r = 0.56, p < .05$$

**Interpretation:** There is a statistically significant moderate positive correlation between internet addiction and depression levels among the students.

### DISCUSSION

Findings support previous research indicating a strong relationship between problematic internet uses and increased depressive symptoms (Akin & Iskender, 2011; Sahin et al., 2016). However, the data did not support significant gender or grade-level differences, suggesting that internet addiction and depression are equally relevant concerns across these demographics.

### Limitations

- Reliance on self-report instruments may introduce bias.
- Limited to urban schools; results may not generalize to rural populations.
- Did not control for socio-economic or familial variables.
- Data collected at different times may affect consistency.

### Future Directions

- Include students from rural and socio-economically diverse backgrounds.
- Use qualitative methods for deeper insights.
- Explore long-term effects through longitudinal studies.
- Implement and evaluate school-based and family-based interventions.

### REFERENCES

- Abt, L. E., & Bellak, L. (1950). *Projective Psychology: Clinic Approaches to the Total Personality*. New York: Knoopp.
- Adams, H. E. (1972). *Psychology of Adjustment*. New York: Ronald Press Company.
- Akin, A., & Iskender, M. (2011). Internet addiction and depression, anxiety, and stress. *International Online Journal of Educational Sciences*, 3(1), 138–148.
- Anderson, E. L., Steen, E., & Stavropoulos, V. (2017). Internet use and depression: A meta-analysis. *Child and Adolescent Mental Health*, 22(4), 205–213.
- Arkoff, A. (1968). *Adjustment and Mental Health*. New York: McGraw-Hill.
- Baldwin, A. L. (1942). Personal structure analysis: A statistical method for investigating the signal personality. *Journal of Abnormal and Social Psychology*.
- Bandura, A. (1956). Psychotherapist's anxiety level, self-insight and psychotherapeutic competence. *Journal of Abnormal and Social Psychology*.
- Barach, J. A. (n.d.). Self-confidence and reactions in adolescents. In D. F. Cox (Ed.), *Information in Moods and Behaviour of Adolescents*. Boston: Division of Research, Harvard University.
- Binswanger, L. (1970). Existential analysis and psychotherapy. In Reichmann, F., & Moreno, J. L. (Eds.), *Progress in Psychotherapy*. New York: Grune and Stratton.
- Bonney, M. E. (1960). *Mental Health in Education*. Boston: Allyn and Bacon.

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- Brown, J. F. (1969). *The Psychodynamics of Abnormal Behaviour*. New Delhi: Asia Publishing House.
- Burt, C. (1955). *The Subnormal Mind* (3rd ed.). London: Oxford University Press.
- Carroll, H. A. (1967). *Mental Hygiene – The Dynamics of Adjustment*. New Jersey: Prentice-Hall.
- Chauhan, S. S. (n.d.). *Principles and Techniques of Guidance*. New Delhi: Vikas Publishing House.
- Clifford, P. (1979). *Guidance Testing*. Chicago: Science Research Associate.
- Clifford, P., & Froehlich. (1959). *Guidance Teaching*. Chicago: Science Research Associates.
- Davison, G. C., & Neale, J. M. (1978). *Abnormal Psychology* (2nd ed.). New York: John Wiley and Sons.
- De Leo, J. A., & Wulfert, E. (2013). Problematic internet use and its relationship to dissociative experiences and family functioning. *Addictive Behaviors*, 38(6), 2826–2829.
- Dollard, J., & Miller, N. E. (1950). *Personality and Psychotherapy*. New York: McGraw-Hill.
- Eysenck, H. J. (1960). *Behavior Therapy and the Neurosis*. London: Pergamon Press.
- Harmen, S. A., & Paulson, B. B. (1950). *Counselling Adolescents*. Chicago: Science Research Associates.
- Mental and Behavioural Disorders of Childhood and Adolescence: An Observational Study. <https://www.researchgate.net/publication/353435660>
- Patterns of unhealthy behaviours during adolescence and subsequent anxiety and depression in adulthood: A prospective register linkage study. <https://www.researchgate.net/publication/367350129>
- Rao, N. (1994). *Counselling Psychology*. New Delhi: Tata McGraw Hill.
- Sahin, C., Ozdemir, Y., Unsal, B., & Temiz, N. (2016). Predicting the internet addiction in adolescents: The role of family functioning and emotion regulation. *Educational Sciences: Theory and Practice*, 16(5), 1797–1814.
- School achievement in adolescence and the risk of mental disorders in early adulthood: A Finnish nationwide register study. <https://www.researchgate.net/publication/370469044>
- Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science*, 6(1), 3–17.
- World Health Organization. (2021). *Adolescent mental health*. <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
- Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *Cyber Psychology & Behavior*, 1(3), 237–244. <https://doi.org/10.1089/cpb.1998.1.237>

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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