



Assessing Psychological Distress in Relation to Smartphone Use Behaviors among Young Adults

Nathanael Solomon¹, Johnson W S² & Mohsina Sultana³

1. Student, Christ College, Mysuru, Email:nathanaelsolomon08@gmail.com
2. Assistant Professor, Department of Psychology, Christ College, Mysuru
3. Assistant Professor, Department of Psychology, Christ College, Mysuru

Abstract: *A surge in smart phone adoption by younger individuals prompts worries about their mental health implications. This research endeavors to evaluate how smartphone usage affects mental health among contemporary adolescents. The study employed a quantifiable approach involving a snapshot analysis of data across all subjects in its population; specifically, it utilized convenience sampling by selecting 100 individuals for investigation. Observations were gathered through application-specific questionnaires designed by Mukherjee and Dasgupta in 2020 for examining habits related to mobile device usage, alongside self-report measures created by Lovibond and Lovibond in 1995 aimed at quantifying symptoms such as depressive mood, anxious thoughts, and psychological distress. Statistical methods such as descriptive and inferential analysis were employed to investigate how smartphone usage patterns correlate with levels of psychological stress. Research suggests that greater usage of smartphones correlates with heightened instances of depressive symptoms, anxious feelings, and stressful conditions in contemporary youth populations. This research emphasizes how prolonged exposure to smartphones affects mental health and stresses the need for encouraging users to adopt healthier tech habits. New findings enhance our understanding of online actions and psychological well-being; they could guide upcoming studies into mental healthcare strategies and campaigns aimed at younger generations navigating today's tech-driven world.*

Keywords: *Smartphone use, Psychological Distress, Depression, Anxiety, Stress..*

1. Introduction: The swift growth of smartphone technology has revolutionized how young adults communicate, learn, and interact socially. While smartphones offer immediate access to social media, entertainment, and educational materials, their overuse has sparked concerns about negative effects on mental health. Young adults are especially susceptible to problematic smartphone use because of their intense engagement with digital technologies and online social spaces.

Recent research suggests that overuse of smartphones is linked to a range of mental health problems, including depression, anxiety, and stress. *Kuss and Griffiths (2017)* note that problematic smartphone use can result in behavioral addiction, marked by compulsive checking, diminished self-control, and withdrawal symptoms when the device is out of reach. Likewise, *Elhai, Levine, Dvorak, and Hall (2017)* found that frequent smartphone users often display elevated anxiety and emotional dysregulation.

Additionally, extended screen time and perpetual connectivity can interfere with sleep cycles, diminish in-person interactions, and heighten social comparison via social media (Twenge, 2019). These factors may contribute to psychological distress among young adults. Psychological distress typically denotes emotional suffering manifested through symptoms like depression, anxiety, and stress (Lovibond & Lovibond, 1995).

Although smartphone technology offers numerous benefits, growing evidence suggests that excessive use can adversely affect mental health. Grasping the link between smartphone usage patterns and psychological distress is crucial for creating strategies that encourage healthy technology habits among young people.

Consequently, this study seeks to evaluate the link between smartphone usage habits and psychological distress in young adults. Specifically, the study examines whether greater smartphone usage is linked to elevated levels of depression, anxiety, and stress.

2. Material and Method: This study utilized a quantitative cross-sectional design to investigate the association between smartphone usage patterns and psychological distress in young adults. This design was chosen to gather data from participants at a single point in time and to examine the relationship between smartphone usage patterns and levels of depression, anxiety, and stress. The study included 107 young adults whose responses were incorporated into the final statistical analysis. The participants were undergraduate students recruited from educational institutions in Mysuru. The participants, aged 18 to 25, belong to a demographic that commonly utilizes smartphones for communication, social networking, entertainment, and academic pursuits. Convenience sampling was employed to recruit participants who were readily available and willing to join the study. The sample comprised male and female respondents from diverse residential backgrounds, encompassing urban, semi-urban, and rural areas.

2.1 Participant and Survey: The present study included 107 young adults aged between 18 and 25 years, primarily undergraduate students recruited from educational institutions in Mysuru. Participants were selected using a convenience sampling technique, which allows researchers to collect data from readily available and willing participants (Etikan et al., 2016). Data were collected through a structured questionnaire survey, administered either face-to-face or via online forms, and the average time taken to complete the survey was approximately 10–15 minutes. The sample consisted of 52 male participants (48.6%) and 55 female participants (51.4%), indicating a relatively balanced gender distribution. All responses were collected voluntarily, maintained confidentially, and coded for statistical analysis using the Statistical Package for the Social Sciences (SPSS) (Field, 2018).

Table: 1 Gender Distribution of Participants

Gender	Frequency (N)	Percentage (%)
Male	52	48.6%
Female	55	51.4%
Total	107	100%

Percentages are calculated based on the total valid responses (N = 107).

2.2 Measures and Interpretation: Two standardized instruments were used in the present study to assess smartphone usage behavior and psychological distress among young adults.

Smartphone Usage Questionnaire: Smartphone usage behavior was measured using the Smartphone Usage Questionnaire developed by Mukherjee and Dasgupta (2020). This instrument is designed to assess patterns and frequency of smartphone usage among individuals. The questionnaire includes items related to the duration of smartphone use, frequency of checking the phone, usage for social networking, entertainment, and academic purposes, as well as dependency on smartphone devices.

Participants responded to the items using a Likert-type scale, indicating the extent to which each statement applied to their smartphone usage behavior. Higher scores on the scale indicate greater levels of smartphone usage and dependency, whereas lower scores reflect more moderate or controlled smartphone usage patterns.

Depression Anxiety Stress Scale (DASS-21): Psychological distress was assessed using the Depression Anxiety Stress Scale (DASS-21) developed by Lovibond and Lovibond (1995). The DASS-21 is a widely used self-report instrument designed to measure three related negative emotional states: depression, anxiety, and stress.

The scale consists of 21 items, with seven items each measuring depression, anxiety, and stress. Participants rate each item on a 4-point Likert scale, ranging from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time).

Interpretation of Scores

Severity Level	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Scores for each subscale are summed and interpreted based on severity levels. Higher scores indicate greater levels of psychological distress. These scores help determine the severity of psychological distress experienced by participants across the three emotional domains.

2.3 Analysis: The collected data were coded and analysed using the Statistical Package for the Social Sciences (SPSS) (Field, 2018). Descriptive statistics such as mean, standard deviation, minimum, and maximum values were used to summarize the demographic characteristics of the participants. A crosstabulation analysis was conducted to examine the distribution of gender and living situations among the respondents. To assess the relationship between smartphone usage and psychological distress, Pearson correlation analysis was performed. This analysis helped determine the strength and direction of the association between the variables. Additionally, a simple linear regression analysis was conducted to examine whether smartphone usage significantly predicts psychological distress among young adults. The level of statistical significance for all analyses was set at $p < .05$.

3. Result

Table 2: Distribution of Participants by Education Level and Gender.

Education Level	Male (Gender – 0)	Female (Gender – 1)	Total
PU	04	02	06
UG	45	52	97
PG	03	01	04
Total	52	55	107

Note: PU = Pre-University; UG = Undergraduate; PG = Postgraduate.

The report shows how participants are spread across different areas and genders. Out of the total participants (N=107), most came from urban areas (76 people), followed by semi-urban (15) and rural (16). Looking at gender, there were 52 males and 55 females. Among the males, 37 were from urban areas, 6 from semi-urban, and 9 from rural. For females, 39 were urban, 9 semi-urban, and 7 rural. Overall, the group is mostly made up of people from urban areas.

Table 3: Pearson Correlation between Smartphone Addiction and Psychological Distress.

Variables	Smartphone Addiction	Psychological Distress
Smartphone Addiction	1	.936**
Psychological Distress	.936**	1

Note: p < .01

The table presents the Pearson correlation between smartphone addiction and psychological distress. The **correlation coefficient (r = .936)** indicates a very strong positive relationship between the two variables. This suggests that individuals who exhibit higher levels of smartphone addiction are more likely to experience increased levels of psychological distress. The significance value ($p < .01$) confirms that the relationship is statistically significant. Therefore, excessive smartphone use appears to be strongly associated with higher levels of depression, anxiety, and stress among young adults.

Table 4: Independent Samples t-Test for Gender Differences.

Variable	Gender	N	Mean	Std. Deviation	p-Value
Smartphone Addiction	Male	55	49.80	13.99	.409
	Female	52	47.40	15.89	
Psychological Distress	Male	55	123.05	30.86	.479
	Female	52	118.27	38.65	

The table presents the comparison of smartphone addiction and psychological distress between male and female participants. The mean scores indicate that males reported slightly higher levels of smartphone addiction and psychological distress compared to females. However, the **p-values (.409 and .479)** are greater than the significance level of **0.05**, indicating that these differences are **not statistically significant**. This means that gender does not significantly influence smartphone addiction or psychological distress in this study. Overall, both male and female participants show relatively similar patterns of smartphone usage and psychological distress.

Table 5: One-Way ANOVA Examining Differences in Smartphone Addiction and Psychological Distress across Education Levels.

Variable	Source	F	P – Value
Smartphone Addiction	Between Groups	0.107	.899
Psychological Distress	Between Groups	0.106	.900

Note. PU = Pre-University; UG = Undergraduate; PG = Postgraduate.

The table presents the results of one-way ANOVA conducted to determine whether smartphone addiction and psychological distress differ across education levels. The obtained F-values are very small and the significance values ($p = .899$ and $p = .900$) are **greater than .05**.

This indicates that there are no statistically significant differences in smartphone addiction or psychological distress across the education levels of PU, UG, and PG students. Although minor variations may exist in mean scores, these differences are not statistically meaningful. Hence, educational level does not significantly influence smartphone addiction or psychological distress in this study.

Table 6: One-Way ANOVA Examining Differences in Smartphone Addiction and Psychological Distress by Area of Residence.

Variable	Source	F	p-Value
Smartphone Addiction	Between Groups	1.340	.266
Psychological Distress	Between Groups	0.885	.416

The table presents the ANOVA results comparing smartphone addiction and psychological distress across different residential backgrounds. The significance values for smartphone addiction ($p = .266$) and psychological distress ($p = .416$) are greater than the standard significance level of .05. This indicates that the differences among urban, semi-urban, and rural participants are not statistically significant. Although some variations in mean scores may exist, these differences are not large enough to be considered meaningful. Therefore, residential background does not significantly affect smartphone addiction or psychological distress among the participants.

4. Discussion: The study was designed to look into how smartphone addiction connects with psychological stress in young adults. The results give us a better understanding of how the way people use smartphones is linked to mental health issues like depression, anxiety, and stress. The study found a strong link between smartphone addiction and psychological distress. However, when looking at other factors such as gender, education level, and where people live, there were no major differences in terms of smartphone addiction or mental health issues. One key result from the study is the strong link between smartphone addiction and psychological distress. The Pearson’s correlation analysis showed a very strong connection ($r = .936$, $p < .01$), meaning that those who reported higher levels of smartphone addiction also had higher levels of psychological distress. This suggests that spending too much time on smartphones can lead to higher levels of depression, anxiety, and stress in young adults. Constant use of smartphones for social media, entertainment, communication, and study may lead to problems like too much information, comparing oneself to others, and disturbed sleep, all of which can harm mental health. These results match what other research has found about how overuse of smartphones can be harmful for mental health in teenagers and young adults. The study also checked if there were differences in smartphone addiction and psychological distress between men and women. The results from the independent samples t-test showed that men had slightly higher scores for both smartphone addiction and distress than women, but these differences weren’t statistically significant. This suggests that both men and women use smartphones in similar ways and experience similar levels of distress. The lack of significant gender differences might mean that smartphone use is now common for both genders, and the effects of smartphone use on mental health are similar across genders. Another goal of the study was to see if education level had an effect on smartphone addiction and distress. The one-way ANOVA results showed no significant differences among students from different education levels (postgraduate, undergraduate, and pre-university). This suggests that education level doesn’t greatly affect smartphone addiction or mental health within this age group. Since the participants were young adults at a similar life stage, their smartphone usage and mental health experiences likely overlap regardless

of their education. The study also looked at whether area of residence influenced smartphone addiction and distress. The results showed no significant differences between urban, semi-urban, and rural areas. Although urban participants made up most of the sample and had slightly higher scores, these differences weren't statistically meaningful. This suggests that smartphone use and related mental health effects aren't limited to any specific area. With smartphones and internet access being widely available, people in urban, semi-urban, and rural areas now have similar access to digital technology. As a result, the effects of smartphone use on mental health are likely to be similar across different living settings.

Overall, the study shows a strong link between smartphone addiction and mental distress in young adults. Even though factors like gender, education, and area of residence didn't have a major impact, the strong connection between smartphone use and mental health highlights the need to address overuse. Young adults could benefit from developing healthier habits, like limiting screen time, engaging in offline activities, and maintaining healthy social interactions. Schools and mental health professionals can also help by promoting digital well-being and raising awareness about the possible mental health risks of too much smartphone use.

5. Conclusion: This study was designed to look at how smartphone addiction is connected to psychological distress in young adults. The results showed a clear link between being heavily addicted to smartphones and experiencing more depression, anxiety, and stress. This means that people who use their phones a lot are more likely to feel worse mentally. These results show that too much smartphone use can have a big effect on mental health, especially since young adults are living in a world that's very much driven by technology. The study also checked if things like gender, education, and where someone lives affect smartphone addiction or psychological distress. But the results didn't find any big differences based on these factors. This suggests that the mental effects of smartphone use might be similar for most young adults, no matter their background. In general, the study shows how important it is to understand the mental health effects of using smartphones too much.

Since smartphones are such a big part of everyday life, it's important for people to develop good habits and find a healthy balance with technology to keep their mental health in check.

5.1. Implications of the finding: The results of this study have several key points that are important for individuals, schools, and mental health experts to consider. First, the strong link between smartphone addiction and mental health problems shows that people need to be more aware of the risks that come from using smartphones too much. Young adults should be encouraged to form better habits when it comes to using technology and find a good balance in how they use their devices. Second, schools and universities can help students take better care of their mental health by offering programs that teach responsible smartphone use. This could include talks, special sessions, or counselling that helps students understand how to manage their use of phones and avoid becoming too dependent on them. Third, mental health workers and counsellors should take into account how much people use their smartphones when they are assessing their mental well-being. Learning about how technology fits into someone's daily life can help professionals create better ways to help reduce stress caused by technology and improve overall mental health.

Finally, government officials and teachers can use these findings to help create programs that teach young people how to use technology wisely and encourage healthy habits when it comes to smartphone use.

5.2. Limitations and Suggestions for Future Research

Limitations: Despite the useful findings from this study, there are a few important points to consider. First, the study used a convenience sampling method, which means the participants were not randomly selected. This could affect how well the results apply to a larger group of people. Most of the participants were undergraduate students, so the results might not reflect the experiences of people from different age groups

or professions. Second, the study depended on self-reported questionnaires. This means people answered questions about their own behavior and feelings. There's a chance they might have given answers that they think are more socially acceptable rather than what they really experienced. This could lead to either underreporting or overreporting of their smartphone use and related psychological effects. Third, the study only included 107 participants, which is a relatively small number. This might not be enough to fully capture the range of smartphone usage patterns and the different levels of psychological distress that young adults can experience. Lastly, the study was cross-sectional, meaning it looked at data at a single point in time. This makes it hard to determine if there's a cause-and-effect relationship between smartphone addiction and psychological distress. While a strong link was found, it doesn't mean one directly causes the other.

Suggestions for Future Research: Future research can build on the current study in several ways. One possibility is to carry out studies with bigger and more varied groups of people, including those from different ages, jobs, and areas. This would make the study's results more applicable to a wider range of people. Another direction is to use long-term studies to better understand how smartphone addiction affects mental health over time. These studies could help find out if using smartphones a lot leads to more mental health issues as time goes on. Researchers could also look into other factors that might affect the link between smartphone addiction and mental health, like how well someone sleeps, how they use social media, stress from school, and their overall lifestyle.

Another area to explore is developing and testing ways to help reduce unhealthy smartphone use, such as digital detox programs, which could improve mental well-being, especially for young adults.

Lastly, conducting in-depth studies could provide a better understanding of how individuals personally experience smartphone use and how it impacts their daily lives, relationships, and emotions.

Reference

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
- Elhai, J. D., Dvorak, R. D., Levine, J. C., & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*, 207, 251–259. <https://doi.org/10.1016/j.jad.2016.08.030>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Kwon, M., Kim, D. J., Cho, H., & Yang, S. (2013). The smartphone addiction scale: Development and validation of a short version for adolescents. *PLoS ONE*, 8(12), e83558. <https://doi.org/10.1371/journal.pone.0083558>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the *Beck Depression and Anxiety Inventories*. *Behaviour Research and Therapy*, 33(3), 335–343. [https://doi.org/10.1016/0005-7967\(94\)00075-U](https://doi.org/10.1016/0005-7967(94)00075-U)
- Mukherjee, A., & Dasgupta, S. (2020). Smartphone usage patterns and their impact on psychological well-being among young adults. *International Journal of Indian Psychology*, 8(3), 1010–1018.
- Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321–325. <https://doi.org/10.1016/j.chb.2015.12.045>

- Thomée, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults. *BMC Public Health*, 11, 66. <https://doi.org/10.1186/1471-2458-11-66>
- Twenge, J. M. (2019). *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy—and completely unprepared for adulthood*. Atria Books.
- World Health Organization. (2019). International classification of diseases for mortality and morbidity statistics (11th rev.). *World Health Organization*.

Citation: Solomon. N., Johnson W S & Sultana. M., (2026) “Assessing Psychological Distress in Relation to Smartphone Use Behaviors among Young Adults”, *Bharati International Journal of Multidisciplinary Research & Development (BIJMRD)*, Vol-4, Issue-04(2), April-2026.