

Research Paper

A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

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ABSTRACT

The present study examined smartphone addiction, mental health, and social maturity among secondary and higher secondary school students in Jalgaon district. Adolescence is a sensitive developmental stage in which technology use, emotional adjustment, and social development interact closely. With the rapid expansion of smartphone access, concerns have increased regarding excessive use and its possible impact on students' psychological well-being and maturity. The study was conducted on a sample of 200 students, including 100 secondary school students and 100 higher secondary school students selected from Jalgaon district. A descriptive survey method was employed. Data were collected with the help of the Smartphone Addiction Scale, the Mental Health Scale, and Rao's Social Maturity Scale. The statistical techniques used were the mean, standard deviation, independent-samples t-test, and Pearson's correlation coefficient. The findings indicated that higher secondary school students showed significantly higher smartphone addiction than secondary school students. Secondary school students obtained significantly better mental health scores than higher secondary school students. Higher secondary school students scored significantly higher on social maturity than secondary school students. Correlation analysis further showed that smartphone addiction was negatively related to mental health and social maturity, whereas mental health and social maturity were positively associated. The study highlights the need for balanced digital habits, school-based mental health support, and structured interventions to promote responsible smartphone use among adolescents. The findings may help teachers, parents, and school counsellors understand the developmental differences between the two groups and design age-appropriate guidance programmes.

Keywords: *smartphone addiction, mental health, social maturity, secondary school students, higher secondary school students, adolescence*

In recent years, the smartphone has become one of the most influential technologies in adolescents' everyday lives. It is no longer used only for communication; it is also a major source of learning, social networking, entertainment, gaming, and emotional escape. For school students, smartphones offer quick access to educational resources, online interaction, and digital engagement. However, when use becomes excessive, uncontrolled,

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A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

or emotionally dependent, it may develop into problematic behaviour often described as smartphone addiction (Kwon et al., 2013).

Adolescence is a stage of transition marked by emotional sensitivity, identity formation, peer influence, and increasing academic responsibility. During this period, students are more vulnerable to habits that affect their adjustment and development. Excessive smartphone use may interfere with concentration, sleep, study routines, emotional stability, and interpersonal relationships. Studies have shown that problematic smartphone use is associated with depression, anxiety, stress, and poor self-regulation (Elhai et al., 2017; Samaha & Hawi, 2016). Demirci et al. (2015) also reported that excessive smartphone use was linked with poorer sleep quality and lower psychological well-being among university students, and this concern is equally relevant to adolescents.

Mental health is an essential part of a student's overall development. It includes emotional balance, positive self-concept, adjustment in school and home, and the ability to maintain healthy peer relations. A mentally healthy student is generally more confident, cooperative, emotionally secure, and able to handle daily academic and social challenges. On the other hand, poor mental health may appear in the form of anxiety, frustration, withdrawal, sadness, irritability, and academic maladjustment (Keyes, 2002). In adolescence, mental health becomes even more important because young people are coping simultaneously with academic pressure, social expectations, and developmental changes.

Another important developmental variable is social maturity. Social maturity refers to the ability to behave in a socially responsible, emotionally balanced, and interpersonally appropriate manner. A socially mature student understands social norms, respects others, handles relationships with responsibility, and participates constructively in group situations. Social maturity supports cooperation, empathy, adjustment, and self-control. Hurlock (1981) observed that maturity in adolescence is reflected not only in age-related growth but also in the ability to manage oneself appropriately in social situations. Thus, social maturity is not merely a personal trait; it is a sign of successful adjustment to the social environment.

The relationship among smartphone addiction, mental health, and social maturity is highly significant in the present educational context. When students become overdependent on smartphones, direct social interaction may decrease, emotional dependence may increase, and healthy routines may become disturbed. Such a pattern may weaken both mental health and social maturity. At the same time, developmental differences may exist between secondary and higher secondary school students. Higher secondary students may have greater exposure, freedom, and social experience, but they may also face greater academic stress and greater digital involvement.

REVIEW OF RELATED LITERATURE

Kwon et al. (2013) developed and validated the Smartphone Addiction Scale and explained that smartphone addiction includes behavioural dependency patterns such as compulsive use, withdrawal-like symptoms, tolerance, and disturbances in daily functioning. Their work gave an important foundation for understanding problematic smartphone use among adolescents and young adults. Similarly, Elhai et al. (2017) reviewed the literature and concluded that problematic smartphone use is strongly associated with anxiety and depressive symptoms. They argued that smartphones may become a coping tool for emotional discomfort, thereby strengthening unhealthy dependency.

A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

Samaha and Hawi (2016) examined the relationship between smartphone addiction, stress, academic performance, and life satisfaction among university students. Their findings showed that smartphone addiction was significantly related to perceived stress and lower life satisfaction. Although the study focused on older students, its conclusions are highly relevant to adolescents in school, who are often less emotionally regulated and more vulnerable to digital distractions. Demirci et al. (2015) found that excessive smartphone use was associated with poor sleep quality, depression, and anxiety. The authors suggested that problematic smartphone use does not remain limited to time-wasting but can also influence broader psychological well-being.

In the Indian and school-related context, mental health has been viewed as a crucial indicator of healthy personality development. Good mental health supports confidence, emotional security, and academic adjustment, while poor mental health creates barriers in concentration, behaviour, and peer relationships. Keyes (2002) emphasised that mental health should be understood not merely as the absence of mental illness, but as the presence of positive functioning, social well-being, and emotional wellness. This perspective is especially relevant in school education, where students need both emotional strength and social competence.

Social maturity has also attracted attention in developmental and educational psychology. Hurlock (1981) explained that social maturity develops gradually through age, experience, and opportunities for healthy interaction. A socially mature student is usually more responsible, cooperative, tolerant, and emotionally balanced. Social maturity supports successful adaptation in school, family, and peer settings. Students with greater social maturity are expected to manage interpersonal conflict more effectively and participate in social life with greater understanding.

Objectives of the Study

1. To study the level of smartphone addiction among secondary and higher secondary school students.
2. To study the level of mental health among secondary and higher secondary school students.
3. To study the level of social maturity among secondary and higher secondary school students.
4. To compare secondary and higher secondary school students on smartphone addiction, mental health, and social maturity.
5. To examine the relationship among smartphone addiction, mental health, and social maturity.

Hypotheses

1. There is no significant difference between secondary and higher secondary school students in smartphone addiction.
2. There is no significant difference between secondary and higher secondary school students in mental health.
3. There is no significant difference between secondary and higher secondary school students in social maturity.
4. There is no significant relationship among smartphone addiction, mental health, and social maturity.

A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

RESEARCH METHOD

Sample

The sample consisted of 200 students from Jalgaon district, selected using stratified random sampling. Of these, 100 were secondary school students, and 100 were higher secondary school students. The sample was selected to provide equal representation of both groups for a comparative study of smartphone addiction, mental health, and social maturity.

Tools Used

- 1. Smartphone Addiction Scale:** The manual indicates a 23-item, 5-point Likert-type scale with six dimensions and higher scores representing greater smartphone addiction.
- 2. Mental Health Scale:** The manual presents a 54-item scale covering school-related, home-related, and peer-group-related causes, with positive and negative items scored accordingly.
- 3. Rao's Social Maturity Scale:** This scale measures social maturity through dimensions related to personal adequacy, interpersonal adequacy, and social adequacy.

Statistical Techniques

Mean, standard deviation, independent samples *t* test, and Pearson's coefficient of correlation were used.

RESULTS AND DISCUSSION

Table 1 Secondary and higher secondary school students on smartphone addiction

Type of Students	N	Mean	S.D.	df	t	Sig.
Secondary School Students	100	71.42	10.84	198	3.50**	0.01
Higher Secondary School Students	100	76.88	11.26			

Table 1 shows that the mean score of secondary school students on smartphone addiction was 71.42 (S.D. = 10.84), whereas the mean score of higher secondary school students was 76.88 (S.D. = 11.26). The obtained *t* value was 3.50, which is significant at the 0.01 level. Therefore, the null hypothesis was rejected. This indicates that higher secondary school students had significantly higher smartphone addiction than secondary school students. A possible reason is that higher secondary students generally have more personal freedom, more academic and social media use, and wider digital exposure.

Table 2 Secondary and higher secondary school students' mental health

Type of Students	N	Mean	S.D.	df	t	Sig.
Secondary School Students	100	131.26	16.42	198	3.00**	0.01
Higher Secondary School Students	100	124.18	17.08			

Table 2 indicates that the mean mental health score for secondary school students was 131.26 (S.D. = 16.42), whereas the mean score for higher secondary school students was 124.18 (S.D. = 17.08). The *t* value of 3.00 is significant at the 0.01 level. Hence, the null hypothesis was rejected. It may be inferred that secondary school students showed better mental health than higher secondary school students. This difference may be due to greater academic pressure, examination anxiety, career uncertainty, and digital overload among higher secondary students.

A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

Table 3 Secondary and higher secondary school students on social maturity

Type of Students	N	Mean	S.D.	df	t	Sig.
Secondary School Students	100	247.63	22.35	198	4.19**	0.01
Higher Secondary School Students	100	261.41	24.18			

Table 3 reveals that the mean social maturity score for secondary school students was 247.63 (S.D. = 22.35), while the mean score for higher secondary school students was 261.41 (S.D. = 24.18). The obtained *t* value was 4.19, which is significant at the 0.01 level. Therefore, the null hypothesis was rejected. The finding suggests that higher secondary school students possessed greater social maturity than secondary school students. This is developmentally meaningful because social maturity typically increases with age, experience, and broader social exposure.

Table 4 Correlation among smartphone addiction, mental health, and social maturity (N = 200)

Variables	1	2	3
1. Smartphone Addiction	1.00		
2. Mental Health	-0.46**	1.00	
3. Social Maturity	-0.39**	0.42**	1.00

Sign = $p < .01$.

Table 4 shows that smartphone addiction had a moderate negative correlation with mental health ($r = -0.46, p < .01$) and social maturity ($r = -0.39, p < .01$). Mental health and social maturity were positively correlated ($r = 0.42, p < .01$). Therefore, the fourth null hypothesis was rejected. These findings suggest that students who are more addicted to smartphones may be more vulnerable to poor emotional balance and weaker social functioning, whereas students with better mental health tend to be more socially mature.

CONCLUSION

The study concludes that smartphone addiction, mental health, and social maturity are significantly related aspects of adolescent adjustment. Higher secondary school students were found to have higher smartphone addiction and higher social maturity, whereas secondary school students showed better mental health. Smartphone addiction was negatively related to both mental health and social maturity, while mental health was positively related to social maturity. These findings underline the importance of guiding students toward healthy digital habits and emotionally supportive school environments.

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A Study of Smartphone Addiction, Mental Health and Social Maturity among Secondary and Higher Secondary School Students

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Conflict of Interest

The author(s) declared no conflict of interest.

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