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Social Media and Emotional Maturity among Government and Non-Government Higher Secondary School Students: A Comparative Survey from Indore, India

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Abstract

Background: Adolescents increasingly communicate and express themselves through social media, which has drawn attention to its possible links with emotional development. Comparative evidence on whether students from different school contexts differ in emotional maturity in relation to social media remains limited.

Objective: To examine whether government and non-government higher secondary school students differ significantly in emotional maturity in relation to social media.

Methods: A descriptive survey design was used. Using random cluster sampling, 500 higher secondary students (250 government and 250 non-government) were selected from Indore district, Madhya Pradesh, India. Emotional maturity was assessed with a researcher-developed three-point Likert-type scale (23 retained items; Cronbach's $\alpha = 0.961$). Data were analysed using means, standard deviations and an independent-samples t test at the .05 level of significance.

Results: Non-government school students obtained a higher mean score ($M = 3.65$, $SD = 1.09$) than government school students ($M = 2.80$, $SD = 1.19$). The difference was statistically significant ($t = 4.104$, $p = .006$), and the null hypothesis was rejected.

Conclusions: A statistically significant group difference in emotional maturity in relation to social media exists between government and non-government higher secondary students. Because the design was descriptive, the result indicates a group difference and not a causal effect of social media. Schools may consider emotional-literacy and responsible-digital-use programmes for all students.

Keywords: social media; emotional maturity; higher secondary students; government schools; non-governent schools; adolescents; educational research

Highlights

- 500 higher secondary students from Indore district were compared by school type.
- Non-government students scored significantly higher on the emotional maturity scale than government students.
- The finding reflects a group difference; the descriptive survey design does not support causal claims.
- Emotional-literacy and responsible digital-use programmes are suggested for schools.

1. Introduction

Social media has become an integral part of everyday life and has changed how people communicate, exchange information, interact socially and express themselves. Adolescents form one of the most active user groups of social networking platforms. For students, these platforms can offer access to educational resources, contact with peers and exposure to ideas beyond their immediate surroundings. At the same time, their growing presence in adolescents' daily routines has led researchers to ask how they relate to psychological, emotional and social development (Keles et al., 2020; Piccerillo & Digennaro, 2024).

The higher secondary stage is an important point in this development. Students at this level are typically in mid-to-late adolescence, a period marked by changes in emotional experience, self-

concept, peer relationships, independence and social expectations. Emotional maturity is a central aspect of this process. It refers to the ability to recognise and understand one's own emotions, regulate emotional responses, cope with situations appropriately and maintain balanced behaviour. Students with greater emotional maturity are likely to respond more constructively to personal, academic and social challenges, so emotional maturity matters for adjustment in school and in wider social life.

Social media may shape students' emotional experiences in several ways. It offers channels for communication and self-expression, but it also exposes users to diverse opinions, social comparison, feedback and emotionally stimulating content. The nature and intensity of this exposure may also differ across educational, family and environmental contexts. In India, students attend both government and non-government schools, which differ in resources, institutional culture and student backgrounds. Whether students in these two school types differ in emotional maturity in relation to social media is therefore an educationally relevant question.

The present study addresses this question for higher secondary students in Indore district, Madhya Pradesh, India.

2. Review of Related Literature

2.1 Social media and adolescent emotional functioning

Research on social media and adolescents' emotional functioning has grown quickly, although findings are mixed. In a systematic review, Piccerillo and Digennaro (2024) reported that lower emotional intelligence was associated with more problematic social media use among adolescents, that social media use correlated negatively with self-esteem, and that difficulties in emotion regulation were linked to problematic use. The same review found that social media use correlated positively with empathy. A later structural-equation study of preadolescents found that social media use predicted addiction and sociocultural appearance ideals and was inversely associated with emotional intelligence (Piccerillo et al., 2025). Other work points to potential benefits: a one-year longitudinal study reported that social media use was associated with increases in affective and cognitive empathy (Vossen & Valkenburg, 2016).

Evidence on psychological outcomes is similarly qualified. A systematic review linked social media use to depression, anxiety and psychological distress among adolescents (Keles et al., 2020), whereas a large-scale analysis found a very small negative association between digital technology use and adolescent well-being, explaining at most a fraction of one per cent of the variation in well-being (Orben & Przybylski, 2019). Together, these studies suggest that associations between social media and emotional outcomes are real but modest, and that they depend on how social media is used.

Within the Indian literature, Garg and Malhotra (2017) examined the relationship between social media and emotional maturity, and Goswami and Tripathi (2020) studied the impact of social media on emotional maturity. Other studies have examined emotional maturity in relation to academic achievement and educational relationships (Kumar & Mishra, 2018; Ramaswamy & Krishni, 2021; Sutradhar & Sen, 2022). Table 1 summarises the international studies discussed above.

Table 1. Summary of selected studies on social media and adolescent emotional or psychological outcomes

Study	Design	Main finding
Piccerillo & Digennaro (2024)	Systematic review	Lower emotional intelligence and poorer emotion regulation were associated with problematic social media use; use correlated negatively with self-esteem and positively with empathy.

Study	Design	Main finding
Piccerillo et al. (2025)	Structural equation modelling (preadolescents)	Social media use predicted addiction (β = .47) and appearance ideals (β = .39) and was inversely associated with emotional intelligence (β = −.22).
Vossen & Valkenburg (2016)	Longitudinal (one year)	Social media use was associated with increases in affective and cognitive empathy.
Keles et al. (2020)	Systematic review	Social media use was linked to depression, anxiety and psychological distress in adolescents.
Orben & Przybylski (2019)	Large-scale secondary analysis	Digital technology use showed a very small negative association with adolescent well-being.

Note. Findings are summarised from the cited sources.

2.2 Research gap

Existing studies have largely examined social media in relation to individual-level outcomes such as emotional intelligence, emotion regulation, self-esteem and well-being. Fewer studies have compared students from government and non-government schools on emotional maturity in relation to social media, particularly in the Indian context of Madhya Pradesh. The present study contributes a group-wise comparison based on 500 higher secondary students from Indore district.

2.3 Objective and hypothesis

The objective of the study was to examine the difference in the impact of social media on the emotional maturity of government and non-government higher secondary school students. The following null hypothesis (numbered H04 in the doctoral thesis from which this paper is drawn) was tested:

H0: There is no significant difference in the impact of social media on the emotional maturity of government and non-government higher secondary school students.

3. Methodology

3.1 Research design

A descriptive survey design was used. This design suited the aim of comparing the emotional maturity scores of two naturally occurring groups, government and non-government higher secondary school students, without manipulating any variable. Figure 1 shows the overall research design.

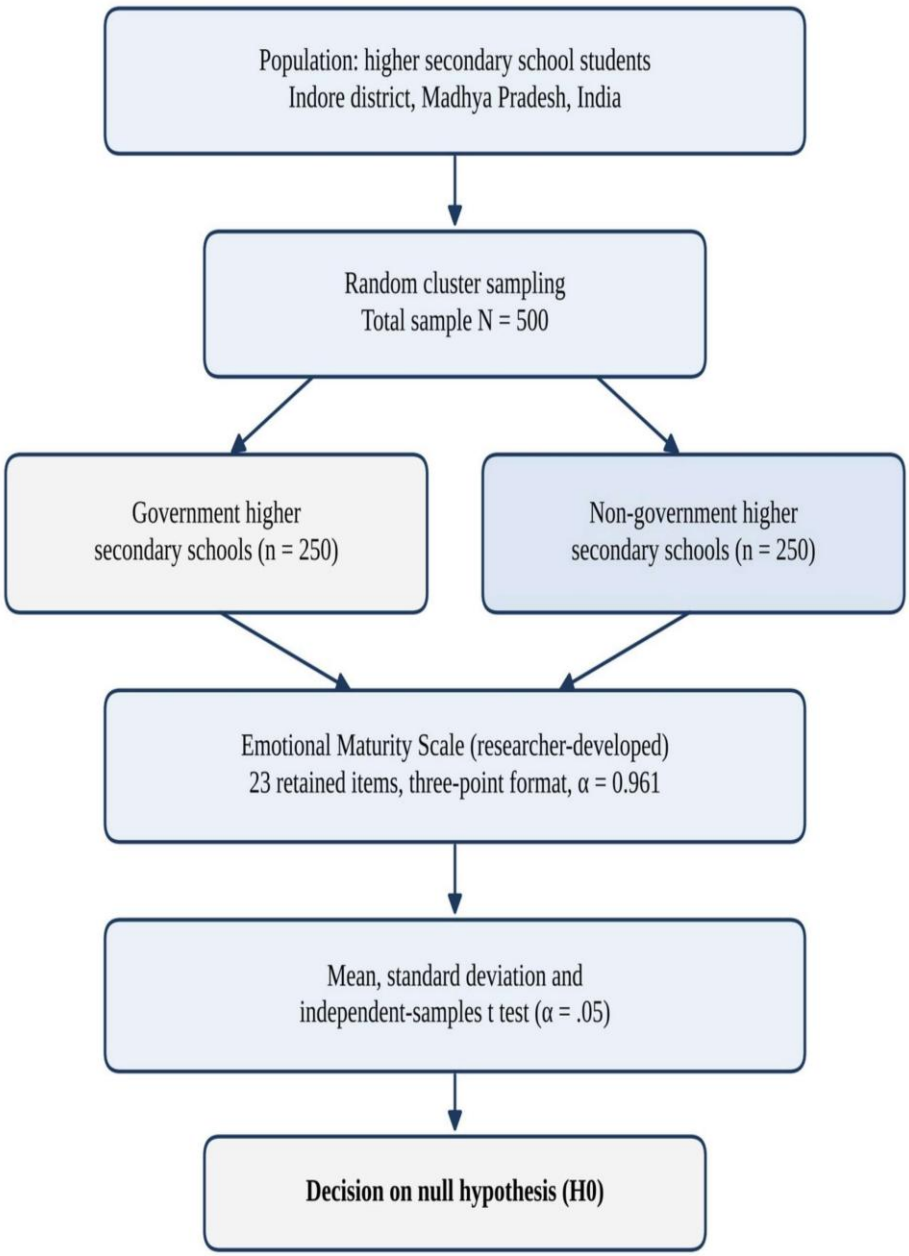


Figure 1. Research design and flow of the study.

3.2 Variables

Social media was the independent variable and emotional maturity the dependent variable. Type of school (government or non-government) was the grouping variable.

3.3 Operational definitions

Social media refers to internet-based digital platforms through which students communicate, interact, exchange information, share content and express ideas.

Emotional maturity refers to a student's ability to understand and regulate emotional experiences and to respond to different situations in a balanced and appropriate manner, as assessed by the researcher-developed emotional maturity scale.

Higher secondary students are students enrolled at the higher secondary level in the schools covered by the study.

3.4 Population and sample

The population comprised higher secondary school students from government and non-government

schools in Indore district, Madhya Pradesh, India. A sample of 500 students was selected using random cluster sampling, with equal representation of the two school types (Table 2).

Table 2. Distribution of the sample by school type

School type	n	%
Government higher secondary schools	250	50.0
Non-government higher secondary schools	250	50.0
Total	500	100.0

Note. n = number of students.

Data were collected from two higher secondary schools in Indore district. The participants were higher secondary students whose ages corresponded to the typical age range of students at this level.

3.5 Research instrument

Primary data were collected with a researcher-developed Emotional Maturity Scale. The scale was first developed with 30 items using a three-point Likert-type response format and contained both positively and negatively worded statements. After item-level examination, 23 items were retained. Internal consistency was high (Cronbach's $\alpha = 0.961$). For comparison, emotional maturity research in India has also drawn on the standardised Emotional Maturity Scale of Singh and Bhargava (1990). Table 3 summarises the instrument.

Table 3. Characteristics of the emotional maturity scale

Characteristic	Description
Type of instrument	Researcher-developed Emotional Maturity Scale
Initial number of items	30
Items retained after item analysis	23
Response format	Three-point Likert-type
Item wording	Positive and negative statements
Internal consistency (Cronbach's α)	0.961

Note. Item analysis and reliability are as reported in the doctoral thesis.

3.6 Data collection procedure

The researcher administered the scale to the selected students and collected their responses. The data were then organised and analysed statistically in line with the objective and hypothesis of the study.

3.7 Data analysis

Means and standard deviations were computed for each group. An independent-samples t test was used to compare the two groups, with the level of significance set at .05 (two-tailed).

3.8 Ethical considerations

The study was carried out as part of the first author's doctoral research. Participation was voluntary,

students were informed about the purpose of the study, and the confidentiality of their responses was maintained. The data were used only for research purposes.

4. Results

4.1 Descriptive statistics

Table 4 presents the descriptive statistics for the two groups, and Figure 2 compares their mean scores. Non-government school students obtained a higher mean score (M = 3.65, SD = 1.09) than government school students (M = 2.80, SD = 1.19), a difference of 0.85 score points.

Table 4. Descriptive statistics of emotional maturity scores by school type

Group	n	M	SD
Government higher secondary students	250	2.80	1.19
Non-government higher secondary students	250	3.65	1.09

Note. M = mean; SD = standard deviation.

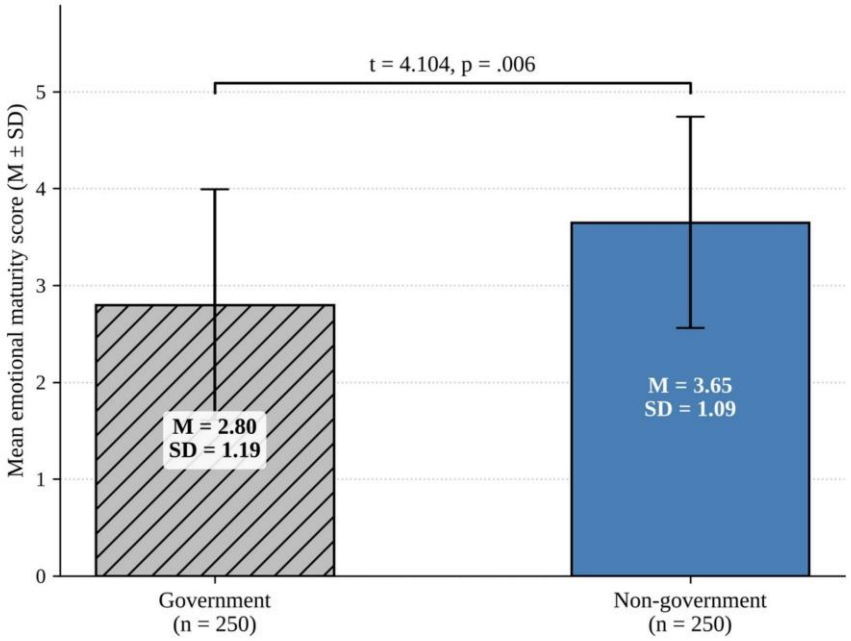


Figure 2. Mean emotional maturity scores of government and non-government higher secondary students (N = 500). Error bars represent ±1 SD.

4.2 Testing of the null hypothesis

The independent-samples t test (Table 5) showed a statistically significant difference between the two groups. Because the p value was lower than the predetermined significance level of .05, the null hypothesis H0 was rejected.

Table 5. Independent-samples t test comparing emotional maturity of government and non-government students

Comparison	t	df	p	α	Decision on H0
Government vs non-government	4.104	498	.006	0.05	Rejected

4.3 Interpretation

The mean score of non-government higher secondary students (M = 3.65, SD = 1.09) was higher than that of government higher secondary students (M = 2.80, SD = 1.19), and the difference was statistically significant at the .05 level. The result therefore indicates a significant difference between the two groups in emotional maturity in relation to social media.

5. Discussion

This study found a statistically significant difference between government and non-government higher secondary school students in emotional maturity in relation to social media. The non-government group obtained the higher mean score on the scale, and the difference was significant at the .05 level.

The finding adds a school-context dimension to research on social media and emotional development. Earlier work has mostly examined individual-level associations, for example between social media use and emotional intelligence, emotion regulation or self-esteem (Piccerillo & Digennaro, 2024; Piccerillo et al., 2025), and Indian studies have linked social media with emotional maturity (Garg & Malhotra, 2017; Goswami & Tripathi, 2020). By comparing two school types, the present study shows that group membership is itself related to differences on the emotional maturity measure.

The result should be read with care. The study used a descriptive survey design and did not manipulate social media use, so the observed difference cannot be taken as evidence that social media causes differences in emotional maturity. Large-scale evidence also suggests that associations between digital technology use and adolescent well-being tend to be small (Orben & Przybylski, 2019), which argues against reading any single group difference as a direct effect of social media.

The difference may instead be associated with other contextual and individual factors that were not separately tested, such as family environment, educational experiences, peer relationships, socioeconomic circumstances and patterns of digital use. Examining these factors alongside school type would show which of them account for the observed gap.

6. Educational Implications

Emotional development programmes. Schools may include activities that build emotional awareness, emotional regulation, self-understanding and balanced interpersonal responses.

Digital guidance. Students may be guided toward balanced, responsible and purposeful use of social media.

Teacher sensitisation. Teachers may be sensitised to adolescents' emotional experiences in digital environments so that they can identify students who need additional support.

Parent–school collaboration. Parents and schools may maintain constructive communication about students' digital experiences and emotional development.

Digital and emotional literacy. Digital literacy programmes may be paired with emotional literacy so that students can both use digital technologies and understand and regulate their responses in digital settings.

7. Limitations

- The study was confined to higher secondary students in Indore district, which limits generalisation to other regions.
- Emotional maturity was assessed with a researcher-developed instrument, and the findings rest on students' self-reported responses.
- The descriptive survey design does not permit causal interpretation of the relationship between social media and emotional maturity.
- Other potentially relevant variables, such as family environment, socioeconomic background, patterns of social media use and individual psychological characteristics, were not separately examined in the reported hypothesis test.

8. Conclusion

The study compared 500 higher secondary students, 250 from government schools and 250 from non-government schools in Indore district, on emotional maturity in relation to social media. Mean scores were 2.80 for government students and 3.65 for non-government students, and the difference was statistically significant ($t = 4.104$, $p = .006$); the null hypothesis was therefore rejected. The result demonstrates a group difference but, given the descriptive design, not a causal effect of social media on emotional maturity.

Future research may examine the intensity and duration of social media use, gender, socioeconomic background, family environment, academic achievement and the types of platforms used. Longitudinal and mixed-methods designs would help clarify how students' digital experiences relate to emotional development over time.

Declarations

Ethics approval and consent to participate: The study was conducted as part of the first author's doctoral research. Participation was voluntary, and students' responses were kept confidential.

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Conflict of interest: The authors declare no conflict of interest.

Data availability: The study is based on primary data collected during the first author's doctoral research. The data are available from the corresponding author on reasonable request.

Author contributions (CRediT): Sarita Singh – conceptualisation, methodology, investigation, formal analysis, writing (original draft). Anju Lata Yadav – supervision, writing – review and editing.

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