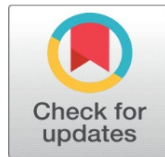
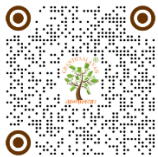


PATTERNS OF DIGITAL ENGAGEMENT AND PSYCHOLOGICAL WELL-BEING: EXAMINATION OF SOCIAL MEDIA USE AMONG INDIAN UNIVERSITY STUDENTS

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ABSTRACT

Social media use has become so embedded in the life of students that it has created a paradox of the digital age: while social media can connect students, it can also teach them, it can support them, it can also make them feel the need to compare with others, it can distract them, and it can cause them distress. The evidence base surrounding social media is both fragmented and contradictory, as treating 'use' as a monolithic construct. This study examines the distinct dimensions of social media use and their links to the psychological health of university students in India in a single model using the perspectives of psychology, media studies and education. In this study, a descriptive and analytical cross-sectional design was used and data were collected through a five-point Likert scale questionnaire targeting 352 students using stratified-purposive sampling technique. Reliability analysis, descriptive statistics, Pearson correlation, multiple linear regression, regression-based analysis of variance and one-way ANOVA were used for analysis of the data. The results indicate that the usage intensity, social comparison and fear of missing out (FoMO) have significant negative effects on psychological well-being, while online social support has a significant positive effect, and together these factors explain 47 per cent of the variance in psychological well-being. Daily use level also significantly affected well-being, with higher levels of well-being associated with less frequent use. The results confirm that psychological outcomes are not only driven by access to and duration of engagement but also by the pattern and nature of engagement, and suggest it is possible to foster more balanced, supportive digital behaviours and targeted institutional interventions.

Keywords: Social Media Engagement, Psychological Well-Being, Social Comparison, Fear of Missing Out, Online Social Support, Usage Intensity, University Students

1. INTRODUCTION

Social media is now a way of life for students and has grown into an integral part of their daily routine, being used for a variety of educational, identity-expressive, social, informational and entertainment purposes. These platforms provide authentic and significant advantages for students in higher education, who are in their most formative developmental stages, just consolidating their identities and negotiating independence [Sahoo et al. \(2024\)](#), [Mishra & Das \(2024\)](#), [Saini et al. \(2020\)](#). Smartphones and cheap mobile data have become a part of everyday life for students in India, rather than a privilege.

In addition to these advantages, however, there is a growing stream of research in the fields of psychology, media studies and education that cautions against the potential repercussions of high or specific levels of engagement on psychological health and well-being [Mahalwal and Maini \(2023\)](#), [Verghese and Thomas \(2022\)](#). Rather than the quantity of online time, it is the kind and quality of online engagement that influences psychological well-being, traditionally defined as positive affect, life satisfaction, self-acceptance, autonomy and a sense of purpose. Passive consumption, constant upward social comparison and the fear of missing out (FoMO) have regularly been correlated with feelings of anxiety, lowered self esteem, and lower life fulfillment, while active, reciprocal interaction, and online social help have been connected to higher levels of well being [Banerjee and Roy \(2023\)](#), [Pillai and Menon \(2021\)](#).

The duality, whereby what can be harmful and what can be helpful, is the central issue of digital life and cannot be explained with a single discipline. Without a psychological account, the design and affordances of the platforms are overlooked; without a media-centric account, individual differences in vulnerability and resilience are overlooked; and without an educational account, both are overlooked, leaving a lack of elements to inform institutional response. Therefore, it requires intervention in the phenomenon.

Based on the social comparison theory and uses and gratifications theory, informed by the self-determination theory's focus on relatedness, the present study investigates the joint effects of the four facets of social media usage—usage intensity, social comparison, fear of missing out and online social support—on the psychological well-being of university students in India. The study aims to overcome the contradictory results that emerge when use is considered as an undifferentiated entity, by estimating harmful and protective influences in a single model.

The research evidence regarding the effects of social media and wellbeing is very mixed: some has found clear negative impacts, while others has found positive impacts. One source of this inconsistency is methodological, as much of the research reports on the use of social media as a single measure, usually frequency or time [Verghese and Thomas \(2022\)](#). There is a dearth of studies in India that model competing factors of usage intensity, FoMO and social comparison in the same analysis, which leaves the relative weight of negative and positive factors unclear.

Furthermore, the Indian context of the health of university students, as compared to adolescents or the general adult population, is comparatively little explored even though it is a highly active and unique pattern of use. The present study aims to address the problem of lack of a unified perspective on the role of various dimensions of social media engagement on shaping the psychological well-being of university students in India and the extent to which this well-being changes based on the intensity of usage.

The aims of the study were as follows:

- 1) To study the impact of how much social media is used on psychological health of university students.
- 2) To analyse the influence of social comparison on psychological well-being.
- 3) To measure the impact of fear of missing out (FoMO) on psychological health.
- 4) To assess the importance of online social support as a protective factor for psychological wellbeing.
- 5) To examine if there is a difference in psychological well-being between different amounts of daily social media usage.

2. REVIEW OF LITERATURE

2.1. SOCIAL MEDIA USAGE INTENSITY AND WELL-BEING

There is ample evidence that relates high usage of social media to low psychological well-being. According to students who use the internet for long periods of time regularly, they experience greater sleep disturbance, mental fatigue, attentional fragmentation and anxiety [Sahoo et al. \(2024\)](#), [Krishnan and Devi \(2022\)](#). [Saini et al. \(2020\)](#) concluded that the heavy use of SNS was linked to the deterioration of life quality among college students in India and [Bhattacharya and Sen \(2021\)](#) reported that smartphone hyper-use (SHU) increased the academic stress of college students. But the role of intensity is becoming more nuanced, with scholars advising against relying on it exclusively, as it can be misleading because a time spent in "passive, comparison-laden scrolling" [Banerjee and Roy \(2023\)](#), [Mathew and Pillai \(2021\)](#) can have a different impact. This qualification encourages the use of intensity as one of a number of indicators instead of its being the only indicator.

2.2. SOCIAL COMPARISON PROCESSES

Social comparison theory is a robust framework to examine the psychological effects of social media. Platforms are designed around curated, idealised self-presentations and may promote the tendency to compare oneself constantly upwards, which can lead to a decrease in self-esteem, satisfaction, and mood [Mahalwal and Maini \(2023\)](#), [Sharma and Kaur \(2023\)](#). [Iyer and Krishnan \(2021\)](#) have observed that comparison orientation in social media was a significant predictor of decreased self-esteem among Indian students, while [Rao, and Sharma \(2021\)](#) have associated social comparison with decreased well-being in a digital environment. However, the evidence indicates that comparison does not occur as an incidental by-product of use, but is rather a key mechanism that accounts for how exposure leads to distress and is therefore a crucial variable in any integrated model.

2.3. FEAR OF MISSING OUT (FOMO)

The fear of missing out, which is characterized as an overarching anxiety of not getting as good a reward as one's peers, is closely linked with compulsive checking and anxiety and reduced life satisfaction among students [Reddy and Bose \(2024\)](#), [Gupta and Nair \(2022\)](#). [Rajendra et al. \(2023\)](#) found that FoMO had a negative impact on life satisfaction and academic performance, whereas [Joseph and Thomas \(2022\)](#) associated it with problem internet usage and emotional hardship. FoMO is theorised to function as a motivational mechanism that leads to excessive engagement in social media, thereby creating a self-reinforcing loop of anxiety, checking, comparsion, and anxiety.

2.4. ONLINE SOCIAL SUPPORT AS A PROTECTIVE FACTOR

These are the dangers counteracted by social media, which can be a legitimate source of assistance. Positive well-being, self-esteem, and sense of belonging have been linked with reciprocal interaction, their access to and encouragement of communities of shared experience [Pillai and Menon \(2021\)](#), [Das and Roy \(2023\)](#). Online social support has been found to have a buffering effect from academic stress and to augment, not replace, offline relationships through active use [Thomas and](#)

Varghese (2024), Verghese and Thomas (2022). This protective dimension is crucial because models that measure only harmful effects systematically underestimate the net psychological effect of social media usage, and help explain the literature on opposing effects of social media noted above.

2.5. RESEARCH GAP

Although there is a wealth of literature on the subject, three knowledge gaps exist. First, few Indian studies estimate harmful and protective factors together, which means that relative magnitudes of the two remain unclear, and the most significant targets of intervention, therefore, remain unclear. Second, the truly nature of the phenomenon (psychological mechanisms, media-use behaviours and educational outcomes) is not always captured in built-in empirical designs. Third, there is limited attention given to the well-being of university students, as a specific demographic, compared to adolescents and general samples in India Krishnan and Devi (2022). The current study aims to contribute to the literature by incorporating four domains of engagement in the model and examining the effects of these levels of engagement on levels of well-being.

2.6. HYPOTHESES DEVELOPMENT

Based on the above review, and according to the social comparison theory, the uses-and-gratification and the relatedness of self-determination theory, the following five hypotheses are derived. The first three predict harmful pathways, the fourth a protective pathway and the fifth a group difference between usage levels:

- H1: Social media usage intensity has a significant negative effect on psychological well-being.
- H2: Social comparison has a significant negative effect on psychological well-being.
- H3: Fear of missing out (FoMO) has a significant negative effect on psychological well-being.
- H4: Online social support has a significant positive effect on psychological well-being.
- H5: Psychological well-being differs significantly across levels of daily social media use.

3. RESEARCH METHODOLOGY

3.1. RESEARCH DESIGN

The study uses descriptive and analytical, cross sectional research design with deductive approach to develop hypothesis based on psychology theory and media theory, to verify the hypothesis with primary quantitative data. The cross-sectional approach can be used for the study of strength and direction of association between naturally-occurring variables within a specific population, at a specific time.

3.2. VARIABLES AND OPERATIONAL DEFINITIONS

Psychological well-being is the dependent variable, which is defined as a composite of positive affect, life satisfaction and self-acceptance. The independent variables are: usage intensity (frequency, duration, and habitual centrality of using social media); social comparison (evaluating oneself based on others' social media

depictions); fear of missing out (apprehensions about missing out on others' rewarding experiences); and online social support (perceived encouragement, help and belonging from social media interaction). Group comparisons are made with regard to the categories of gender, age, and year of study and hours of use per day.

3.3. POPULATION, SAMPLE AND SAMPLING TECHNIQUE

The study subjects were undergraduate and postgraduate students who use at least one social media platform. A stratified-purposive sampling method was used to achieve representation in the disciplines and in the years of study. The strata were defined by a broad group. Questionnaire forms were sent to 386 people; 352 forms were screened for the presence of either patterned or incomplete responses, and 352 were retained (91.2 per cent). The minimum sample size needed for a stable estimation of a four-predictor regression model is well exceeded.

3.4. DATA COLLECTION INSTRUMENT

The questionnaire used was structured with a demographic section and a five-point Likert measurement section (1 = strongly disagree to 5 = strongly agree) that was filled out online and face to face. Items were drawn from well-established questionnaires measuring well-being, social comparison orientation, FoMO and perceived social support, and underwent expert consultation and pilot testing with 32 students to make minor wording changes to clarify and contextualize the items.

3.5. TECHNIQUES OF DATA ANALYSIS

Data were analysed in a clear and specific sequence of methods, each with a specific analysis purpose:

Reliability analysis (Cronbach's alpha) to verify the internal consistency of each multiple item scale.

- **Descriptive statistics:** Mean, standard deviation, skewness and kurtosis to summarise the responses and check approximate normality.
- Pearson correlation to assess the direction, strength and significance of bivariate associations among the variables.
- Multiple linear regression and regression based ANOVA for the overall and individual effects of the four predictors on well-being (H1–H4) and to determine the amount of variance accounted for.
- One-way analysis of variance (ANOVA) was used to determine whether there was a difference in the level of well-being in terms of the daily use of social media (H5).

All results were based on a significance level of 0.05 and variance inflation factors (VIF) were used to check for multicollinearity.

4. DATA ANALYSIS AND INTERPRETATION

4.1. DEMOGRAPHIC PROFILE OF RESPONDENTS

The demographic composition of the 352 student respondents is summarised in table 1. There is a fairly even gender split, and the sample is weighted toward younger undergraduate students – as one would expect – and a significant portion of these students indicated using social media for over four hours a day.

Table 1**Table 1 Demographic Profile of Respondents (n = 352)**

Characteristic	Category	Frequency	Percentage
Gender	Male	179	50.9
	Female	173	49.1
Age (years)	18 – 20	151	42.9
	21 – 23	142	40.3
	Above 23	59	16.8
Level of Study	Undergraduate	228	64.8
	Postgraduate	124	35.2
Discipline	Arts & Humanities	108	30.7
	Science & Technology	144	40.9
	Commerce & Management	100	28.4
Daily Social Media Use	Less than 2 hours	81	23
	2 – 4 hours	168	47.7
	More than 4 hours	103	29.3

Source: Primary data (illustrative survey responses).

4.2. DESCRIPTIVE ANALYSIS

This section presents the preliminary descriptive data analysis (reliability, distributional statistics and bivariate correlations) to verify that the data is appropriate for multivariate testing.

4.2.1. RELIABILITY OF MEASUREMENT SCALES

Cronbach's alphas were also acceptable to high for all 5 measurement scales (Table 2).

Table 2**Table 2 Reliability Analysis of Constructs**

Construct	No. of Items	Cronbach's α
Social Media Usage Intensity	6	0.83
Social Comparison	6	0.85
Fear of Missing Out (FoMO)	5	0.81
Online Social Support	5	0.79
Psychological Well-Being	8	0.88

All alpha values exceed the 0.70 threshold.

4.2.2. ITEM-WISE ANALYSIS OF MEASUREMENT SCALES

All five constructs responses are shown in Table 3 item-wise. Responses were measured on a five-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. 352 respondents answered each item.

Table 3**Table 3 Item-Wise Likert-Scale Analysis of Study Constructs (n = 352)**

Construct	Short Statement	SD, n (%)	D, n (%)	N, n (%)	A, n (%)	SA, n (%)	Mean	Level
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Social Media Usage Intensity	Social media is part of my daily routine.	6 (1.7)	44 (12.5)	119 (33.8)	127 (36.1)	56 (15.9)	3.52	High
	I use social media several times each day.	5 (1.4)	38 (10.8)	111 (31.5)	133 (37.8)	65 (18.5)	3.61	High
	I spend considerable time on social media.	4 (1.1)	34 (9.7)	110 (31.2)	134 (38.1)	70 (19.9)	3.66	High
	I frequently check social media updates.	6 (1.7)	41 (11.6)	117 (33.2)	129 (36.6)	59 (16.8)	3.55	High
	I feel connected to social media platforms.	5 (1.4)	39 (11.1)	114 (32.4)	131 (37.2)	63 (17.9)	3.59	High
	I actively interact with others on social media.	6 (1.7)	41 (11.6)	117 (33.2)	129 (36.6)	59 (16.8)	3.55	High
Social Comparison	I compare my life with others online.	13 (3.7)	67 (19.0)	130 (36.9)	107 (30.4)	35 (9.9)	3.24	Moderate
	I compare my achievements with others.	10 (2.8)	56 (15.9)	126 (35.8)	117 (33.2)	43 (12.2)	3.36	Moderate
	I compare my appearance with others online.	11 (3.1)	58 (16.5)	128 (36.4)	114 (32.4)	41 (11.6)	3.33	Moderate
	I judge myself through other people's posts.	12 (3.4)	61 (17.3)	130 (36.9)	111 (31.5)	38 (10.8)	3.29	Moderate
	Others' success affects how I view myself.	9 (2.6)	56 (15.9)	124 (35.2)	118 (33.5)	45 (12.8)	3.38	Moderate
	I compare my lifestyle with online users.	13 (3.7)	64 (18.2)	129 (36.6)	110 (31.2)	36 (10.2)	3.26	Moderate
Fear of Missing Out	I fear missing enjoyable experiences.	15 (4.3)	71 (20.2)	133 (37.8)	102 (29.0)	31 (8.8)	3.18	Moderate
	I worry when others are having more fun.	12 (3.4)	64 (18.2)	130 (36.9)	109 (31.0)	37 (10.5)	3.27	Moderate
	I feel excluded from online activities.	13 (3.7)	65 (18.5)	131 (37.2)	107 (30.4)	36 (10.2)	3.25	Moderate
	I frequently check what others are doing.	16 (4.5)	72 (20.5)	134 (38.1)	100 (28.4)	30 (8.5)	3.16	Moderate
	Missing online updates makes me uncomfortable.	13 (3.7)	67 (19.0)	130 (36.9)	107 (30.4)	35 (9.9)	3.24	Moderate

Online Social Support	Online friends listen to my concerns.	8 (2.3)	53 (15.1)	122 (34.7)	121 (34.4)	48 (13.6)	3.42	High
	I receive emotional support online.	6 (1.7)	41 (11.6)	117 (33.2)	129 (36.6)	59 (16.8)	3.55	High
	Online contacts provide helpful advice.	7 (2.0)	45 (12.8)	118 (33.5)	125 (35.5)	57 (16.2)	3.51	High
	I can share personal problems online.	8 (2.3)	47 (13.4)	121 (34.4)	124 (35.2)	52 (14.8)	3.47	High
	Online interactions make me feel supported.	7 (2.0)	45 (12.8)	119 (33.8)	127 (36.1)	54 (15.3)	3.5	High
Psychological Well-Being	I feel satisfied with my life.	9 (2.6)	54 (15.3)	125 (35.5)	119 (33.8)	45 (12.8)	3.39	Moderate
	I maintain positive relationships with others.	7 (2.0)	47 (13.4)	121 (34.4)	124 (35.2)	53 (15.1)	3.48	High
	I manage my daily responsibilities effectively.	8 (2.3)	48 (13.6)	121 (34.4)	124 (35.2)	51 (14.5)	3.46	High
	I have a clear purpose in life.	9 (2.6)	52 (14.8)	124 (35.2)	120 (34.1)	47 (13.4)	3.41	Moderate
	I feel confident about my decisions.	7 (2.0)	45 (12.8)	119 (33.8)	127 (36.1)	54 (15.3)	3.5	High
	I continue to develop as a person.	9 (2.6)	56 (15.9)	124 (35.2)	118 (33.5)	45 (12.8)	3.38	Moderate
	I generally feel positive about myself.	8 (2.3)	49 (13.9)	122 (34.7)	123 (34.9)	50 (14.2)	3.45	High
	I handle life challenges effectively.	8 (2.3)	49 (13.9)	122 (34.7)	123 (34.9)	50 (14.2)	3.45	High

Note: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree. Percentages may show minor rounding differences.

The Social Media Usage Intensity items had a mean score of between 3.52 and 3.66, which suggests moderate and frequent social media usage. The highest mean was for spending a lot of time on social media. The mean scores for Social Comparison and FoMO were moderate at 3.16 and 3.38, respectively. This highlights that there was some comparative behaviour and fear of missing online experiences among respondents, but not very high. For all online social support items, students had high mean scores ranging from 3.42 to 3.55, suggesting that students generally received emotional support, advice and encouragement online. The average scores for Psychological Well-Being showed a moderate to high score from 3.38 to 3.50, indicating that the respondents generally had positive relationships, confidence and were able to cope with life challenges.

4.2.3. DESCRIPTIVE STATISTICS

Descriptive statistics (Table 4) indicated moderate mean scores for all constructs, and skewness and kurtosis values were in the conventional range of ± 1 , indicating that there was no evidence of significant deviation from normality that was required for parametric analysis.

Table 4

Table 4 Descriptive Statistics of Study Variables				
Variable	Mean	SD	Skewness	Kurtosis
Social Media Usage Intensity	3.58	0.72	-0.12	-0.41
Social Comparison	3.31	0.78	0.09	-0.35
Fear of Missing Out (FoMO)	3.22	0.74	0.18	-0.29
Online Social Support	3.49	0.69	-0.24	-0.18
Psychological Well-Being	3.44	0.63	-0.27	0.11

Measured on a five-point Likert scale; n = 352.

4.2.4. CORRELATION ANALYSIS

The Pearson correlation matrix (Table 5) is the first formal test of the hypothesised directions. The results showed that psychological well-being was found to be negatively and significantly related with usage intensity, social comparison and FoMO and had positive and significant relationship with online social support. There is moderate inter-predictor correlation which is not an early sign of problematic multicollinearity.

Table 5

Table 5 Pearson Correlation Matrix					
Variable	1	2	3	4	5
1. Usage Intensity	1				
2. Social Comparison	0.41**	1			
3. FoMO	0.46**	0.49**	1		
4. Online Social Support	0.14*	-0.11*	-0.09	1	
5. Psychological Well-Being	-0.34**	-0.45**	-0.42**	0.38**	1

**p < 0.01, *p < 0.05 (two-tailed); n = 352

4.3. HYPOTHESIS TESTING

The four psychological well-being engagement dimensions were used as independent variables and psychological well-being was used as the dependent variable for testing the four hypotheses. For multiple linear regression, psychological well-being was used as the dependent variable and the four psychological well-being engagement dimensions as independent variables. One-way ANOVA was used for testing the H5 by daily usage groups. The results are shown in Tables 6-10.

4.3.1. REGRESSION MODEL SUMMARY

A behavioural regression model accounted for 47% of the variance in psychological well-being, and showed good model fit (Table 6): $R^2 = 0.470$, adjusted $R^2 = 0.464$.

Table 6**Table 6 Regression Model Summary**

Model	R	R ²	Adj. R ²	Std. Error	F	Sig.
1	0.686	0.47	0.464	0.461	76.9	0

Predictors: Usage Intensity, Social Comparison, FoMO, Online Social Support. Dependent variable: Psychological Well-Being.

4.3.2. SIGNIFICANCE OF THE MODEL (ANOVA)

The overall model is statistically significant (Table 7: $F = 76.9$, $p < 0.001$), indicating that the model as a whole explains a significant amount of the variance in the well-being measure.

Table 7**Table 7 ANOVA for the Regression Model**

Source	Sum of Sq.	df	Mean Sq.	F	Sig.
Regression	64.86	4	16.215	76.9	0
Residual	73.14	347	0.211		
Total	138	351			

Dependent variable: Psychological Well-Being.

4.3.3. REGRESSION COEFFICIENTS

The standardised coefficients (Table 8) confirm all four directional hypotheses. The strongest effect is exerted by online social support, which is positive ($\beta = 0.31$), followed in magnitude by social comparison ($\beta = -0.27$), FoMO ($\beta = -0.22$) and usage intensity ($\beta = -0.18$) with significant results. The variance inflation factors are lower than 2, indicating that no multicollinearity is present.

Table 8**Table 8 Regression Coefficients with Collinearity Statistics**

Predictor	B	S.E.	Beta (β)	t	Sig.	VIF
(Constant)	3.214	0.196	—	16.4	0	—
Online Social Support	0.283	0.044	0.31	6.43	0	1.21
Social Comparison	-0.219	0.045	-0.27	-4.87	0	1.42
Fear of Missing Out (FoMO)	-0.187	0.047	-0.22	-3.98	0	1.48
Social Media Usage Intensity	-0.158	0.043	-0.18	-3.67	0	1.33

Dependent variable: Psychological Well-Being.

4.3.4. GROUP DIFFERENCES ACROSS USAGE LEVELS

For H5 one way ANOVA was used to compare psychological well-being within the three groups of daily usage (Table 9). This difference was significant ($F = 13.85$, $p < 0.001$). Heavy users (more than four hours use; $M = 3.18$) scored lowest, light users (less than two hours use; $M = 3.66$) scored highest, and intermediate use (two to four hours use; $M = 3.47$) was in between; heavy users differed significantly from light and intermediate users.

Table 9

Table 9 One-Way ANOVA: Well-Being across Daily-Usage Levels					
Source	Sum of Sq.	df	Mean Sq.	F	Sig.
Between Groups	10.78	2	5.39	13.85	0
Within Groups	135.8	349	0.389		
Total	146.58	351			

Dependent variable: Psychological Well-Being; grouping variable: daily hours of use.

4.3.5. SUMMARY OF HYPOTHESIS TESTING

Table 10 Consolidates the Outcomes. All Five Hypotheses Were Supported by the Data

Table 10

Table 10 Summary of Hypothesis Testing				
Hyp.	Statement	Test	Statistic	Decision
H1	Usage intensity → well-being (–)	Regression	$\beta = -0.18, p < 0.01$	Supported
H2	Social comparison → well-being (–)	Regression	$\beta = -0.27, p < 0.001$	Supported
H3	FoMO → well-being (–)	Regression	$\beta = -0.22, p < 0.001$	Supported
H4	Online social support → well-being (+)	Regression	$\beta = 0.31, p < 0.001$	Supported
H5	Well-being differs across usage levels	One-way ANOVA	$F = 13.85, p < 0.001$	Supported

5. DISCUSSION

The results highlight the contradictory nature of social media in students' lives and, by combining the estimates of harmful and protective pathways, offer a way to resolve the seemingly conflicting literature. The high negative impact of usage intensity, social comparison and FoMO reaffirms that heavy engagement and comparison are linked to lower levels of psychological well-being, reinforcing the findings that intensive use leads to fatigue, anxiety and dissatisfaction [Sahoo et al. \(2024\)](#), [Saini et al. \(2020\)](#). The rise of social comparison as the most negative predictor directly supports the social comparison theory and is consistent with [Mahalwal and Maini \(2023\)](#) who found that exposure to idealized representations negatively impacted well-being. The pattern leads to the conclusion that the psychological impact of using social media is not as much a result of the time itself, as it is a result of the evaluative processes that run with it when using social media.

The model's biggest coefficient is the positive effect of online social support, which is very important to note, as this indicates that social media is not always damaging. Students' engagement in using platforms for reciprocal connection, encouragement and community, was found to promote rather than compromise well-being, in line with [Pillai and Menon \(2021\)](#) and [Das and Roy \(2023\)](#). This discovery changes the central question from the quantity to the quality side: "The medium can protect, it can injure, depending on the ways it is used. It also provides an understanding of how the opposing forces of these studies are inevitably camouflaged by combining their various uses into a single indicator, and are therefore prone to reaching conflicting conclusions [Vergheese and Thomas \(2022\)](#)."

This is supported by the high statistical significance of the decrease in the well-being scores across the usage levels and the well-being score of the highest usage group being the lowest [Krishnan and Devi \(2022\)](#), [Reddy and Bose \(2024\)](#). The group difference should not, however, be interpreted as a simple dose-response effect of time when considered in conjunction with the regression results. Instead, people who use the device more likely also experience more exposure to comparison and FoMO, and sometimes more passive use, which means that intensity serves as a proxy of the negative behaviours associated with it. This integrative reading, at the variable-level and group-level is exactly what an undifferentiated treatment of use would not capture.

The findings link psychological processes (comparison, FoMO) with media use practices (active versus passive, supportive versus comparative engagement) with implications for education (impacts on student functioning, institutional response). These viewpoints suggest that an intervention must be not only technological, but also psychological and/or environmental and/or skill-related. It suggests a balanced approach for practice: Promote positive, active, and purposeful engagement but encourage restraint of comparison - inducing passive consumption [Sharma and Kaur \(2023\)](#), [Mathew and Pillai \(2021\)](#). Counsellors and universities can raise awareness of digital well-being literacy, promote healthy boundaries for digital use and create supportive online communities, while students can be made aware of the impact of certain types of digital use on their mood and satisfaction.

6. CONCLUSION

This study, conducted across multiple disciplines, examined the associations between the different dimensions of social media engagement with the psychological health of university students and quantifies the potential for harmful and protective effects in a single framework. The evidence demonstrates that each of these – usage intensity, social comparison, FoMO – decreases well-being, and that the daily increase in the amount of online social support increases well-being. The evidence confirms that each – usage intensity, social comparison, FoMO – negatively affects well-being while online social support positively affects it, and that the more one uses the internet, the more it is negatively affecting well-being. The overall finding is that engagement pattern and not just engagement time and access predict psychological outcomes. The practical implication is for fostering balanced, supportive and intentional digital behaviours, supported by institutional digital-well being programmes, which shape skills in a positive manner, rather than taking a blanket approach. The study has limitations including its cross-sectional design, the use of self-report and its single-region sampling, which all limit the ability to make causal inferences and generalise findings. Longitudinal and mixed methods designs could be used in future research, and more refined distinctions between active and passive use, as well as objective measuring of usage, could be included, and protective interventions tested experimentally. This is a sensitive issue; those who are personally distressed are asked to seek help from a trained professional or a trusted individual.

CONFLICT OF INTERESTS

None.

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REFERENCES

- Banerjee, A., and Roy, P. (2023). Active Versus Passive Social Media Use and Student Well-Being. *Journal of Health Psychology*, 28(7), 612–628.
- Bhattacharya, S., and Sen, R. (2021). Smartphone Addiction and Academic Stress Among Indian Undergraduates. *Indian Journal of Health and Wellbeing*, 12(3), 345–351.
- Chatterjee, M., and Pal, S. (2022). Digital Media Use and Sleep Quality Among University Students. *Journal of Indian Academy of Applied Psychology*, 48(2), 211–222.
- Das, R., and Roy, S. (2023). Online Social Support and Subjective Well-Being Among College Students. *Computers in Human Behavior Reports*, 11, 100312.
- Deshpande, A., and Kulkarni, P. (2020). Social Networking and Loneliness Among Indian Youth. *Indian Journal of Positive Psychology*, 11(4), 287–293.
- Dutta, S., and Bose, M. (2022). Self-Presentation, Authenticity and Well-Being on Social Media. *Psychological Studies*, 67(3), 301–313.
- Gupta, S., and Nair, V. (2022). Fear of Missing Out and Compulsive Social Media Use Among Students. *International Journal of Indian Psychology*, 10(2), 1102–1114.
- Iyer, M., and Krishnan, R. (2021). Social Comparison on Social Media and Self-Esteem. *Journal of Psychosocial Research*, 16(1), 89–99.
- Jain, P., and Mehta, R. (2023). Problematic Internet Use and Emotional Well-Being Among Adolescents. *Asian Journal of Psychiatry*, 80, 103412.
- Joseph, A., and Thomas, B. (2022). Digital Well-Being Literacy in Higher Education. *Journal of Educational Technology Systems*, 51(2), 234–252.
- Kaur, J., and Singh, A. (2021). Social Media Use and Anxiety Among University Students. *Indian Journal of Clinical Psychology*, 48(3), 56–64.
- Khan, S., and Ali, M. (2022). Nomophobia and Psychological Distress Among Indian Students. *Journal of Mental Health and Human Behaviour*, 27(1), 44–52.
- Krishnan, S., and Devi, R. (2022). Patterns of Social Media Use and Well-Being Among Indian College Students. *Journal of Mental Health and Human Behaviour*, 27(2), 118–126.
- Mahalwal, A., and Maini, S. (2023). Impact of Social Media on Psychological Well-Being and Happiness Among Young Adults of Different Socio-Economic Groups in Delhi. *International Journal of Indian Psychology*, 11(4), 3093–3100.
- Mathew, L., and Pillai, S. (2021). Active Engagement, Passive Scrolling and Student Mood. *Cyberpsychology, Behavior, and Social Networking*, 24(9), 601–609.
- Menon, A., and Dasgupta, R. (2020). Social Media and Identity Formation Among Emerging Adults. *Psychological Studies*, 65(4), 412–421.
- Nair, P., and Joseph, M. (2023). FoMO, Life Satisfaction and Academic Performance. *Frontiers in Psychology*, 14, 1158234.
- Pillai, R., and Menon, S. (2021). Online Social Support as a Buffer Against Academic Stress. *Journal of College Student Development*, 62(5), 555–570.
- Prasad, K., and Reddy, S. (2022). Screen Time and Psychological Distress Among University Students. *Indian Journal of Public Health*, 66(3), 312–318.
- Rao, D., and Sharma, P. (2021). Social Comparison Orientation and Well-Being in the Digital Age. *Journal of Happiness Studies*, 22(6), 2789–2807.

- Reddy, V., and Bose, S. (2024). Fear of Missing Out and Well-Being Among Indian Students: A Mediation Study. *Current Psychology*, 43(12), 10456–10469.
- Sahoo, P., Mishra, M., and Das, S. C. (2024). Social Media Impact on Psychological Well-Being: A Cross-Sectional Study Among the Adolescents of Odisha. *Journal of Family Medicine and Primary Care*, 13(3), 859–863. https://doi.org/10.4103/jfmmpc.jfmmpc_325_23
- Saini, N., Sangwan, G., Verma, M., Kohli, A., Kaur, M., and Lakshmi, P. V. M. (2020). Effect of Social Networking Sites on the Quality of Life of College Students: A Cross-Sectional Study From a City in North India. *The Scientific World Journal*, 2020, 8576023. <https://doi.org/10.1155/2020/8576023>
- Sen, A., and Gupta, R. (2023). Mindful Social Media Use and Emotional Regulation Among Students. *Indian Journal of Positive Psychology*, 14(2), 156–164.
- Sengupta, S., and Ghosh, A. (2023). Digital Detox Interventions and Student Well-Being. *Health Promotion International*, 38(4), daad078.
- Sharma, R., and Kaur, P. (2023). Upward Social Comparison and Depressive Symptoms Among Young Adults. *Journal of Affective Disorders Reports*, 12, 100501.
- Singh, R., and Verma, K. (2020). Internet Use Intensity and Life Satisfaction Among Students. *Indian Journal of Health and Wellbeing*, 11(7), 901–907.
- Srivastava, A., and Tiwari, P. (2022). Social Media Multitasking and Academic Well-Being. *Education and Information Technologies*, 27(8), 11023–11041.
- Subramanian, K., and Iyer, R. (2021). Social Media Use and Self-Esteem: A Study of Indian University Students. *Journal of Content, Community and Communication*, 14(7), 122–134.
- Thomas, J., and Varghese, A. (2024). Belongingness, Online Communities and Student Well-Being. *Journal of American College Health*, 72(5), 1450–1462.
- Varma, S., and Bhatt, D. (2021). Mindful Social Media Use and Psychological Well-Being. *Mindfulness*, 12(9), 2233–2245.
- Venkatesh, R., and Pillai, A. (2024). Loneliness, Online Support and Well-Being Among Postgraduate Students. *Journal of Psychosocial Research*, 19(1), 71–83.
- Verghese, R., and Thomas, S. (2022). Reconciling Conflicting Evidence on Social Media and Well-Being. *Telematics and Informatics*, 73, 101866.
- Yadav, A., and Pandey, R. (2023). Coping Strategies, Social Media and Stress Among Postgraduate Students. *Journal of Indian Academy of Applied Psychology*, 49(1), 77–88.
- Zachariah, M., and Nanda, P. (2024). Screen Habits, Sleep and Subjective Well-Being in Indian Youth. *Sleep and Vigilance*, 8(1), 113–124.