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CYBER ETIQUETTE, SOCIAL RELATIONSHIPS AND SELF-ESTEEM AMONG YOUNG ADULTS: A STUDY ACROSS GENDER AND RESIDENTIAL BACKGROUND IN GUJARAT

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Abstract

Digital communication has become an ordinary part of social and educational life, making the quality of online interaction an important psychological issue. The present study examined the associations among cyber etiquette, social relationships, and self-esteem in young adults from Gujarat and assessed whether these variables differed by gender and residential background. A quantitative, cross-sectional correlational design was used with 120 participants aged 18–30 years. The sample contained 60 men and 60 women and an equal allocation of 60 urban and 60 rural participants. Participants were recruited through educational institutions, workplaces, community contacts, and online/offline channels using quota-guided non-probability recruitment to maintain the planned group distribution. Cyber etiquette, social relationships, and self-esteem were assessed using the Cyber Etiquette Scale (Santhosh & Thiyagu, 2022), Social Relationship Scale (Kumar et al., 2017), and Self-Esteem Scale (Santosh Dhar & Upinder Dhar, 2015), respectively. Pearson correlations, independent-samples t tests, and multiple linear regression were conducted. Cyber etiquette was positively related to social relationships, $r = .707$, $p < .001$, and self-esteem, $r = .593$, $p < .001$. Social relationships were also positively related to self-esteem, $r = .652$, $p < .001$. None of the gender comparisons was statistically significant. Urban participants scored higher than rural participants on cyber etiquette, $t(118) = 2.14$, $p = .034$, $d = .39$, while residential differences in social relationships and self-esteem were not significant. In regression models controlling for age, gender, and residential background, cyber etiquette significantly predicted social relationships, $B = 0.636$, $p < .001$, and self-esteem, $B = 0.323$, $p < .001$. The findings indicate that positive online conduct is meaningfully connected with interpersonal

and self-evaluative functioning in this sample, while the cross-sectional design limits causal interpretation.

Keywords: cyber etiquette, social relationships, self-esteem, young adults, gender, residential background, Gujarat, digital behaviour

Introduction

Digital interaction has moved beyond occasional communication and now forms part of everyday interpersonal life. Young adults use messaging services, social networking platforms, video calls, online learning systems, and other digital spaces to maintain friendships, coordinate activities, exchange information, and express opinions. The expansion of these interactions means that the manner in which people communicate online can have consequences beyond the screen.

Cyber etiquette, sometimes discussed within the broader concept of digital citizenship, concerns the social and ethical standards that guide behaviour in digital environments. Privacy protection, respectful communication, honesty, responsible sharing, intellectual-property awareness, and consideration of the consequences of online messages are examples of behaviours captured by this construct. The Cyber Etiquette Scale used in the present study assesses three broad areas: privacy and confidentiality, piracy and plagiarism, and integrity and politeness (Santhosh & Thiyagu, 2022).

Recent Indian work indicates that responsible digital behaviour remains an important educational and psychological issue. Prasad (2024) reported variation in cyber etiquette among prospective teachers according to several demographic characteristics. Kukreja and Rajendran (2024) examined digital citizenship and related digital attitudes among school students. More recent work has expanded the focus to digital ethics and intervention: Saxena and Bajotra (2026) assessed postgraduate students' awareness of privacy, security, responsibility, equity, and intellectual property, while Thangan et al. (2026) evaluated a cyber-safety and security literacy programme designed to improve cyber etiquette among prospective teachers.

Research on digital behaviour also continues to show connections with self-evaluation and interpersonal functioning. Sahala and Simon (2025) examined social-media use, emotion regulation, and self-esteem among young adults in India. Khatri and Grover (2025) similarly investigated digital engagement and self-esteem among young adults in Delhi-NCR. International evidence has also emphasized that the psychological effects of social-media

engagement depend on the nature of online interaction, including social comparison and feedback, rather than merely the amount of time spent online.

Within Gujarat, research has largely concentrated on problematic or harmful forms of digital behaviour. Tripathi and Somaiya (2021) studied social-media addiction among youth, Patel (2021) examined social-media addiction and mental health among college students, Vaghasiya et al. (2023) investigated problematic smartphone and social-media use among school-going adolescents in Anand, and Parmar et al. (2024) examined cyberbullying, social-media addiction, and mental-health outcomes among medical students. Khawrin (2022) and Khawrin et al. (2022) also examined cyberbullying-related behaviour among Gujarat University students.

These studies establish the importance of digital behaviour in the Gujarat context but leave a more specific question insufficiently examined: whether constructive online conduct itself is associated with the quality of social relationships and self-esteem. Studying cyber etiquette alongside these two variables shifts the focus from problematic digital use to positive digital behaviour.

Need for the Study

The literature suggests three reasons for examining the present problem. First, much of the Gujarat literature has focused on problematic smartphone or social-media use, addiction, cyberbullying, and related mental-health outcomes. Second, Indian studies that directly measure cyber etiquette have primarily described levels of etiquette or demographic variation rather than testing its simultaneous relationship with social relationships and self-esteem. Third, young adults in Gujarat provide a relevant population because this age group commonly uses digital communication for both personal and academic or occupational purposes.

The present study therefore examines cyber etiquette as a positive behavioural characteristic of digital interaction. Instead of assuming that greater online activity is necessarily harmful or beneficial, the study focuses on how responsibly and respectfully individuals report behaving online.

Review of Literature

Studies from Gujarat

Table 1: Selected Gujarat studies relevant to digital behaviour

Study	Focus	Major contribution
Khawrin (2022)	Cyberbullying; Gujarat University students	N = 130; examined gender, age, internet surfing and cyberbullying-related behaviour.
Khawrin et al. (2022)	Cyberbullying and cyber-victim behaviour	Examined selected online-behaviour relationships among Gujarat University students.
Tripathi & Somaiya (2021)	Social-media addiction among youth	253 respondents; 248 valid responses; factor analysis of 14 items.
Vaghasiya et al. (2023)	Problematic smartphone and social-media use	320 school-going adolescents in Anand, Gujarat; examined patterns and correlates.
Parmar et al. (2024)	Cyberbullying, social-media addiction and mental health	418 medical students in Gujarat; examined depression, anxiety and stress alongside digital behaviour.

Across these Gujarat studies, digital behaviour is consistently treated as a meaningful social or psychological issue. However, the dominant emphasis is on problematic use or harmful experiences. None of these studies directly addresses the combination of cyber etiquette, social relationships, and self-esteem examined in the present research.

Recent Indian and International Literature

Prasad (2024) found that most of the 250 prospective teachers studied had an average level of cyber etiquette and reported demographic differences involving gender, family type, habitat, and caste. The study is important because it treats cyber etiquette as a measurable construct rather than simply as general internet safety.

Kukreja and Rajendran (2024) reported that digital citizenship among 385 middle-school students was related to internet attitudes and perceived computer self-efficacy. Their findings support the view that responsible online participation is associated with broader beliefs and competencies surrounding technology.

Saxena and Bajotra (2026) examined digital ethics among 100 postgraduate students and identified comparatively stronger awareness in responsibility and privacy, with more variable awareness in security, equity, and intellectual property. The study highlights the continuing need to strengthen practical ethical competencies in digitally active students.

Thangan et al. (2026) tested a cyber-safety and security literacy programme among prospective teachers. Using a 50-item cyber etiquette measure, the authors reported improvement after the intervention. This work strengthens the educational relevance of cyber etiquette by showing that digital ethical behaviour can be addressed through structured training.

Recent Indian research has also continued to connect digital engagement with self-esteem. Sahala and Simon (2025) examined social-media use, emotion regulation, and self-esteem among young adults in India, while Khatri and Grover (2025) studied social-media and dating-app engagement in relation to self-esteem among young adults in Delhi-NCR. These studies suggest that the psychological meaning of online behaviour depends on the form and quality of digital engagement rather than on screen time alone.

Taken together, the newer literature strengthens the rationale for examining cyber etiquette as a distinct behavioural construct. Yet there remains limited evidence from Gujarat that simultaneously considers positive online conduct, social relationships, self-esteem, gender, and residential background.

Research Gap

The research gap can be stated explicitly in four parts. First, Gujarat-based research has predominantly investigated problematic digital behaviour, leaving positive online conduct comparatively underrepresented. Second, Indian cyber-etiquette studies have largely concentrated on levels of etiquette, demographic differences, or educational interventions rather than psychological correlates such as social relationships and self-esteem. Third, the relationship among cyber etiquette, social relationships, and self-esteem has not been sufficiently examined together in a Gujarat young-adult sample. Fourth, the possible role of

residential background alongside gender has received limited attention in this specific research area.

The present study addresses these gaps by analysing three psychological variables in the same sample and by comparing participants across gender and residential background. The study is intended to provide a local evidence base for understanding responsible digital behaviour as a positive aspect of psychosocial functioning.

Conceptual Framework

Cyber etiquette was treated as the primary behavioural predictor. Social relationships and self-esteem were treated as outcome variables, while gender and residential background were included as grouping and control variables. The framework proposes that higher cyber etiquette may be associated with stronger social relationships and higher self-esteem. Because the study uses cross-sectional data, the proposed associations are not interpreted as causal pathways.

Objectives

1. To examine the relationship between cyber etiquette and social relationships among young adults.

2. To examine the relationship between cyber etiquette and self-esteem among young adults.

3. To examine the relationship between social relationships and self-esteem.

4. To compare cyber etiquette scores of men and women.

5. To compare social relationship scores of men and women.

6. To compare self-esteem scores of men and women.

7. To compare cyber etiquette scores of urban and rural participants.

8. To compare social relationship scores of urban and rural participants.

9. To compare self-esteem scores of urban and rural participants.

Hypotheses

H1: Cyber etiquette will be positively related to social relationships.

H2: Cyber etiquette will be positively related to self-esteem.

H3: Social relationships will be positively related to self-esteem.

H4: Men and women will differ significantly on cyber etiquette, social relationships, and self-esteem.

H5: Urban and rural participants will differ significantly on cyber etiquette, social relationships, and self-esteem.

H6: Cyber etiquette will significantly predict social relationships after controlling for gender, residential background, and age.

H7: Cyber etiquette will significantly predict self-esteem after controlling for gender, residential background, and age.

Method

Research Design

A quantitative, cross-sectional correlational design was used. The design was appropriate for examining relationships among cyber etiquette, social relationships, and self-esteem and for comparing predefined demographic groups. Regression analyses were used to estimate the statistical contribution of cyber etiquette while controlling for age, gender, and residential background. The cross-sectional design does not permit causal conclusions.

Participants and Sampling

The final sample comprised 120 young adults aged 18–30 years residing in Gujarat. The dataset contained 60 men and 60 women and an equal distribution of 60 urban and 60 rural participants. Participants were regular users of social-media or digital communication platforms and provided informed consent.

A quota-guided, non-probability purposive sampling approach was used to obtain the planned balance across gender and residential background. Participants were approached through educational institutions, workplaces, community contacts, and online/offline recruitment channels within Gujarat. Recruitment continued until the planned group distribution was achieved. The sampling approach was therefore intended to secure representation of the four demographic cells rather than to produce a probability sample of all young adults in Gujarat.

The resulting dataset contained 120 complete participant records. The demographic and psychological variables were retained as recorded in the original participant dataset and were used for all analyses reported below.

Table 2: Distribution of participants

Variable	Category	n	Percentage
Gender	Men	60	50
Gender	Women	60	50
Residential background	Urban	60	50
Residential background	Rural	60	50
Sample	Total	120	100

Inclusion Criteria

• Men and women aged 18–30 years.

• Residents of Gujarat.

• Regular users of social media or digital communication platforms.

• Ability to understand the language in which the measures were administered.

• Willingness to participate voluntarily and provide informed consent.

Exclusion Criteria

• Individuals below 18 or above 30 years of age.

• Individuals who did not regularly use digital communication platforms.

• Responses with substantial missing data or more than one response marked for a single item.

• Participants who withdrew consent before completing the study.

Variables

Table 3: Variables and their role in the analysis

Types	Variable	Categories / dimensions
Independent variable	Gender	Men; Women
Independent variable	Residential background	Urban; Rural
Independent variable	Cyber etiquette	Total Cyber Etiquette Scale score
Dependent variable	Social relationships	Parents; siblings/cousins; friends; relatives; peers/classmates; teachers; strangers
Dependent variable	Self-esteem	Positivity; openness; competence; humility; self-worth; learning orientation

Operational Definitions

Cyber etiquette. Responsible, respectful, and ethical behaviour during online communication, represented by the total score on the Cyber Etiquette Scale.

Social relationships. The quality of interpersonal connections across family, friendship, educational, and other social contexts, assessed using the Social Relationship Scale.

Self-esteem. An individual's evaluation of personal worth and self-acceptance, assessed using the Self-Esteem Scale developed by Santosh Dhar and Upinder Dhar.

Gender. The participant's self-reported category as men or women for the present sample.

Residential background. Whether the participant lived in an urban or rural area.

Measures

Demographic Information Sheet

The demographic form recorded age, gender, residential background, education, occupation/student status, approximate daily internet use, commonly used digital platforms, and duration of social-media use. These variables were used to characterize the sample and provide context for digital communication.

Cyber Etiquette Scale (CES-TSKT)

The Cyber Etiquette Scale developed by Santhosh T. and Thiyagu K. (2022) contains 50 items covering privacy and confidentiality, piracy and plagiarism, and integrity and politeness. The measure is intended to assess ethical practices in cyberspace. The research material reports Cronbach's alpha of .889 and split-half reliability of .839. The total score was used in the present analysis.

Social Relationship Scale (SRS)

The Social Relationship Scale developed by Pradeep Kumar, Faheem Nabi, and Neha Thakur (2017) contains 35 items covering relationships with parents, siblings/cousins, friends, relatives, peers/classmates, teachers, and strangers. The scale uses a five-point Likert-type response format and includes positively and negatively worded items. The research material reports test–retest reliability of .93 over a 21-day interval. Higher scores indicate stronger social relationships.

Self-Esteem Scale (SES-DSDU)

The Self-Esteem Scale developed by Santosh Dhar and Upinder Dhar (2015) contains 23 items across positivity, openness, competence, humility, self-worth, and learning orientation. The scale is available in Hindi and English. The research material reports split-half reliability of .87 and a reliability index of .93. Higher scores indicate higher self-esteem.

Data-Collection Procedure

Institutional permission was obtained before recruitment. Eligible participants were contacted through educational institutions, workplaces, community contacts, and online/offline channels. The researcher explained the purpose of the study and the voluntary nature of participation in accessible language. Participants provided informed consent before completing the measures. The demographic form was completed first, followed by the Cyber Etiquette Scale, Social Relationship Scale, and Self-Esteem Scale. Standardized instructions were used, and participants were allowed to complete the measures without pressure to provide particular responses. Completed records were screened for completeness and entered into statistical software for analysis.

Ethical Considerations

Participation was voluntary and based on informed consent. Unnecessary identifying information was not collected. Participants were informed about confidentiality, the academic

purpose of the research, and their right to discontinue participation. The dataset did not require disclosure of usernames, passwords, private messages, or other identifying digital information. Data were stored securely and used for research purposes.

Statistical Analysis

Data from all 120 participants were analysed. Means, standard deviations, and observed minimum and maximum scores were calculated for the three principal variables. Pearson product-moment correlations were used to examine associations among cyber etiquette, social relationships, and self-esteem. Independent-samples t tests were conducted separately for gender and residential background. Cohen's d was reported as the standardized effect size for group comparisons. Two multiple linear regression models were fitted: the first predicted social relationships and the second predicted self-esteem from cyber etiquette while controlling for age, gender, and residential background. Unstandardized coefficients (B), standard errors, standardized coefficients (β), t values, p values, 95% confidence intervals, R^2, adjusted R^2, and model F statistics were examined. Statistical significance was evaluated at $\alpha = .05$.

Results

Table 4: Descriptive statistics for the principal variables

Variable	M	SD	Minimum	Maximum
Cyber etiquette	175.69	19.06	131	212
Social relationships	120.25	16.86	75	156
Self-esteem	75.16	10.58	46	103

Table 5: Pearson correlations among the principal variables

Variables	r	p
Cyber etiquette – Social relationships	.707	< .001
Cyber etiquette – Self-esteem	.593	< .001

Variables	r	p
Social relationships – Self-esteem	.652	< .001

Table 6: Gender and residential-background comparisons

Outcome	Group 1 M (SD)	Group 2 M (SD)	Test statistic	Comparison
Cyber etiquette	173.30 (18.67)	178.08 (19.31)	t(118) = -1.38, p = 0.170, d = -0.25	Men vs. Women
Social relationships	117.60 (15.84)	122.90 (17.56)	t(118) = -1.74, p = 0.085, d = -0.32	Men vs. Women
Self-esteem	73.57 (10.86)	76.75 (10.14)	t(118) = -1.66, p = 0.100, d = -0.30	Men vs. Women
Cyber etiquette	179.37 (20.78)	172.02 (16.54)	t(118) = 2.14, p = 0.034, d = 0.39	Urban vs. Rural
Social relationships	120.85 (17.58)	119.65 (16.24)	t(118) = 0.39, p = 0.698, d = 0.07	Urban vs. Rural
Self-esteem	76.38 (11.95)	73.93 (8.94)	t(118) = 1.27, p = 0.206, d = 0.23	Urban vs. Rural

Multiple Linear Regression

In the model predicting social relationships, cyber etiquette remained a significant positive predictor after controlling for age, gender, and residential background, B = 0.636, SE = 0.059, β = 0.719, t(115) = 10.79, p < .001, 95% CI [0.519, 0.753]. The overall model was significant, F(4, 115) = 30.65, p < .001, explaining 51.6% of the variance (R^2 = 0.516, adjusted R^2 = 0.499).

In the model predicting self-esteem, cyber etiquette was also a significant positive predictor after adjustment for age, gender, and residential background, B = 0.323, SE = 0.042, β = 0.582, t(115) = 7.60, p < .001, 95% CI [0.239, 0.407]. The overall model was significant, F(4, 115) = 16.34, p < .001, explaining 36.2% of the variance (R^2 = 0.362, adjusted R^2 = 0.340).

Table 7: Regression coefficients for social relationships and self-esteem

Outcome	Predictor	B	SE	β	t	p
Social relationships	Cyber etiquette	0.636	0.059	0.719	10.79	< .001
Social relationships	Age	0.092	0.291	0.021	0.32	0.753
Social relationships	Gender (women)	2.161	2.218	0.064	0.97	0.332
Social relationships	Residential background (urban)	-3.504	2.224	-0.104	-1.58	0.118
Self-esteem	Cyber etiquette	0.323	0.042	0.582	7.60	< .001
Self-esteem	Age	-0.196	0.210	-0.070	-0.93	0.353
Self-esteem	Gender (women)	1.841	1.598	0.087	1.15	0.252
Self-esteem	Residential background (urban)	0.135	1.602	0.006	0.08	0.933

Table 8: Hypothesis Testing

Hypothesis	Result	Evidence
H1	Significant	$r = .707$, $p < .001$
H2	Significant	$r = .593$, $p < .001$
H3	Significant	$r = .652$, $p < .001$
H4	Not Significant	None of the three gender comparisons was statistically significant.
H5	Not Significant	Urban–rural difference was significant for cyber etiquette but not for social relationships or self-esteem.
H6	Significant	$B = 0.636$, $\beta = .719$, $p < .001$; $R^2 = .516$.
H7	Significant	$B = 0.323$, $\beta = .582$, $p < .001$; $R^2 = .362$.

Discussion

The present study examined whether cyber etiquette is related to social relationships and self-esteem among young adults in Gujarat. The results provide a consistent pattern across the three principal constructs. Cyber etiquette showed a strong positive association with social relationships, and it was also positively associated with self-esteem. Social relationships and self-esteem were positively related to one another.

The strongest bivariate association was between cyber etiquette and social relationships ($r = .707$). This finding is theoretically understandable because many of the behaviours represented by cyber etiquette—privacy protection, politeness, responsible sharing, and respectful communication—are directly connected with interpersonal functioning. Digital communication can extend existing relationships, but its quality may matter as much as its frequency. The present result therefore adds a positive behavioural perspective to Gujarat research that has more commonly examined problematic digital behaviour.

Cyber etiquette was also positively associated with self-esteem (r = .593). This result is compatible with the possibility that constructive digital interactions coexist with more positive self-evaluation. However, the association should not be interpreted as evidence that cyber etiquette produces higher self-esteem. Individuals with stronger self-esteem may communicate differently online, and common factors such as social support or personality may influence both constructs.

The relationship between social relationships and self-esteem was also significant (r = .652). This finding is consistent with the broader view that interpersonal experiences and self-evaluation are connected. Importantly, the present analysis concerns association rather than temporal direction.

The gender comparisons did not reach statistical significance for cyber etiquette, social relationships, or self-esteem. This differs from Prasad's (2024) report of demographic differences in cyber etiquette among prospective teachers. Differences in age, educational context, sample composition, and local digital practices may account for the different patterns. The present result therefore suggests that gender differences should not be assumed without examining the characteristics of the specific population.

Residential background produced a more selective pattern. Urban participants scored significantly higher than rural participants on cyber etiquette, with a small-to-moderate effect size (d = .39). No significant residential difference was observed for social relationships or self-esteem. The result may indicate that access to digital resources, patterns of digital exposure, educational opportunities, or familiarity with online norms differ across residential settings, but the present cross-sectional dataset cannot determine which mechanism is responsible. The finding should therefore be viewed as a sample-specific association rather than a general statement about urban and rural young adults.

The regression findings strengthened the bivariate results. After adjustment for age, gender, and residential background, cyber etiquette remained a significant predictor of both social relationships and self-esteem. The social-relationship model explained 51.6% of the variance, while the self-esteem model explained 36.2%. These findings indicate that the association of cyber etiquette with the two outcomes was not eliminated by the demographic controls included in the models.

The recent literature supports the importance of examining positive digital behaviour. Indian research has increasingly moved from broad concerns about internet use toward digital

citizenship, digital ethics, and cyber etiquette. Studies published in 2025 and 2026 have examined digital ethics among postgraduate students, cyber-safety education among prospective teachers, and the relationship of digital engagement with self-esteem. The present study extends this direction by bringing cyber etiquette, interpersonal relationships, and self-esteem together in a Gujarat young-adult sample.

Limitations

• The sample comprised 120 participants and was obtained through non-probability recruitment; therefore, the findings should not be generalized to all young adults in Gujarat without caution.

• The cross-sectional design prevents conclusions about temporal direction or causality.

• Self-report measures may be affected by social desirability, recall, and participants' interpretation of their own digital behaviour.

• The sample was organized into men/women and urban/rural groups and therefore does not capture the full diversity of gender identities or residential circumstances.

• Digital practices differ across platforms and can change rapidly; the findings represent participants' reported behaviour during the period of data collection.

Implications

The findings have practical implications for psychology education and digital citizenship initiatives. Programmes for young adults can move beyond cyber safety alone and include privacy, respectful disagreement, responsible information sharing, intellectual-property awareness, and communication skills. Educational institutions may use brief structured sessions to develop practical digital-ethical competencies.

The residential difference observed for cyber etiquette also suggests that digital-ethics programmes should be sensitive to differences in access, exposure, and educational context. Future studies can examine whether training in digital communication produces measurable changes in cyber etiquette and whether such changes are accompanied by improvements in interpersonal functioning.

Future research should use larger probability-based or stratified samples, longitudinal designs, and multi-method assessment. It would also be useful to examine platform-specific

behaviour, social support, personality, digital literacy, and social comparison as possible factors that explain the relationships observed in the present study.

Conclusion

The present study demonstrates that cyber etiquette is positively associated with social relationships and self-esteem among the 120 young adults included in the Gujarat sample. Social relationships were also positively associated with self-esteem. Gender did not differentiate the three outcomes significantly, whereas urban participants reported higher cyber etiquette than rural participants. Regression analyses showed that cyber etiquette remained a significant predictor of social relationships and self-esteem after adjustment for age, gender, and residential background. Overall, the findings support greater attention to positive and responsible digital behaviour as a psychosocial construct, while the cross-sectional design and non-probability sample require cautious interpretation.

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