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A Study on the Impact of Social Media on Self-Identity, Peer Pressure and Role Confusion Among Adolescents in the Cyber Era

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ABSTRACT

Social media have become an important social environment during adolescence, a developmental period in which young people explore values, relationships and possible selves. The present paper examines the proposed relationships among social media engagement, peer pressure, self-identity clarity and role confusion among adolescents in the cyber era. The conceptual model integrates Erikson's psychosocial view of identity development, Marcia's identity-status perspective, social comparison theory and contemporary research on digitally mediated peer relations. The empirical component is demonstrated using a dataset of 300 adolescents and five statistical procedures: descriptive statistics, internal-consistency reliability, principal component analysis, Pearson correlation and multiple regression. The simulated results show acceptable reliability for all four constructs, a clear four-factor measurement structure, a positive association between social media engagement and peer pressure, a negative association between social media engagement and self-identity clarity, and positive association between social media engagement and role confusion. The regression model explains 36.1% of the variance in role confusion, with social media engagement and peer pressure positively associated with role confusion while self-identity clarity is negatively associated with it. Because the data are simulated and cross-sectional, the results illustrate an analytical framework rather than establishing causal effects. The paper concludes with implications for adolescents, parents, educators, counsellors and future researchers, together with limitations and a proposed questionnaire framework. (Erikson, 1968; Marcia, 1966; Nesi et al., 2018; Avci et al., 2025).

Keywords: Social Media; Adolescents; Self-Identity; Peer Pressure; Role Confusion; Social Comparison; Cyber Era; Regression Analysis.

1.0. Introduction

Adolescence is a period of substantial psychological and social change in which individuals negotiate questions of belonging, values, aspirations and personal identity. Erikson conceptualised adolescence as a developmental stage in which the individual works toward a coherent identity while confronting the possibility of role confusion. Marcia subsequently operationalised identity development through dimensions of exploration and commitment, providing a framework for understanding different patterns of adolescent identity formation. These perspectives remain relevant in the cyber era because digital environments add new audiences, feedback mechanisms and opportunities for self-presentation to the developmental context. (Erikson, 1968; Marcia, 1966; Avci et al., 2025).

Social media platforms provide adolescents with spaces to communicate, display aspects of themselves, receive reactions and observe peers and influencers (Pérez-Torres, 2024; Xu et al., 2023). Contemporary research suggests that social media should not be treated only as a measure of time spent online; the nature and quality of online activities can matter substantially for identity development. Active participation, authenticity, comparison and self-presentation may be associated with different identity outcomes, indicating that the developmental consequences of social media are multidimensional rather than uniformly positive or negative. (Pérez-Torres, 2024; Avci et al., 2025).

Peer relationships are particularly influential during adolescence, and social media can alter the frequency, immediacy, visibility and persistence of peer interactions. Nesi et al. argue that digital environments transform

peer processes by amplifying social experiences and creating new forms of peer influence and interaction. Consequently, adolescents may experience pressure not only through direct face-to-face interactions but also through likes, comments, trends, group norms, public comparison and expectations concerning online participation. (Nesi et al., 2018; Valkenburg & Peter, 2011).

The present study therefore focuses on four related constructs: social media engagement, peer pressure, self-identity clarity and role confusion. Social media engagement refers to the frequency and psychological involvement associated with online social-media activity; peer pressure refers to perceived pressure to conform to peer expectations; self-identity clarity represents the perceived coherence and stability of one's self-concept; and role confusion represents uncertainty or inconsistency concerning roles, values and personal direction. The framework treats these constructs as interconnected rather than as isolated outcomes. (Erikson, 1968; Pérez-Torres, 2024; Xu et al., 2023).

2.0. Background and Theoretical Foundations

2.1. Identity Development in Adolescence

Erikson's psychosocial theory place's identity formation at the centre of adolescent development. Identity involves continuity and coherence in the way individuals understand themselves while integrating personal aspirations with social expectations. When commitments remain unclear or competing role expectations are difficult to reconcile, adolescents may experience uncertainty commonly discussed under the concept of role confusion. In contemporary settings, digital identities can become part of this developmental process because adolescents can present different aspects of themselves to multiple audiences. (Erikson, 1968; Marcia, 1966).

Marcia's identity-status model extended Erikson's ideas by distinguishing identity patterns according to exploration and commitment. Although social media were absent when the original model was developed, its concepts are useful for analysing online identity work because digital environments provide repeated opportunities to explore interests, affiliations, appearance, relationships and possible future selves. Recent systematic evidence similarly identifies identity exploration, commitment, self-concept clarity and identity distress as important dimensions when studying social media and adolescent identity. (Marcia, 1966; Avci et al., 2025).

2.2. Social Media as a Digital Social Mirror

Social media can function as a digital social mirror because adolescents observe others while simultaneously monitoring how others respond to them. Pérez-Torres identifies self-presentation, social comparison, role models and the online audience as central themes in identity construction through social media. This means that the adolescent's sense of self may be repeatedly evaluated in relation to visible peer reactions and culturally salient online standards. (Pérez-Torres, 2024).

Social comparison theory proposes that individuals evaluate aspects of themselves partly by comparing their attributes with those of others. In social media environments, comparison can be unusually frequent because users are continuously exposed to curated images, achievements, lifestyles and social feedback. For adolescents who are

still developing stable self-definitions, repeated comparison may create pressure to conform to perceived norms or to modify self-presentation in order to gain acceptance. (Festinger, 1954; Avci et al., 2025).

2.3. Peer Pressure in Digital Environments

Peer influence is a normal component of adolescent social development, but digital environments can extend its reach. Social media can make peer expectations visible to larger audiences and can increase the immediacy of reactions. Nesi et al. describe social media as a distinct interpersonal context in which peer processes may be amplified, transformed or expressed through novel behaviours. These characteristics make perceived peer pressure an important variable when examining adolescents' online experiences. (Nesi et al., 2018).

Empirical evidence also indicates that peer pressure can be related to problematic social-media outcomes, while self-esteem and self-concept clarity may alter the strength of these associations. In a study of 830 adolescents, Xu et al. reported that peer pressure significantly predicted mobile social-media addiction and that self-esteem and self-concept clarity moderated the relationship. The finding supports the relevance of peer pressure and self-concept clarity as connected constructs in adolescent digital behaviour research. (Xu et al., 2023).

2.4. Role Confusion in the Cyber Era

Role confusion can be understood as uncertainty regarding personal roles, values, expectations or future direction. In the cyber era, adolescents may simultaneously negotiate family roles, school identities, friendship groups and online personas. The coexistence of different audiences can produce tension when adolescents perceive that the self-presented online differs from the self-experienced offline. Such tensions should not automatically be interpreted as pathological; exploration and experimentation are normal parts of identity development. (Erikson, 1968; Marcia, 1966; Pérez-Torres, 2024).

Recent review evidence suggests that the relationship between social media and identity development depends more on what adolescents do online than on time alone. Authentic self-presentation has been linked with greater self-concept clarity, whereas comparison-oriented engagement has been associated with identity exploration and identity distress. These findings justify measuring the quality of engagement and perceived peer pressure alongside frequency or exposure. (Avci et al., 2025).

3.0. Need and Significance of the Study

The growing integration of social media into adolescent peer life creates a need for research that connects digital engagement with identity-related outcomes rather than examining screen time in isolation. Existing reviews identify a complex pattern involving identity exploration, self-concept clarity, comparison, emotional experiences and peer processes. A focused empirical framework can therefore help researchers distinguish between social-media exposure itself and the interpersonal mechanisms through which online environments may relate to adolescents' self-understanding. (Avci et al., 2025; Senekal et al., 2023).

The study is significant for educational and counselling contexts because identity development is closely connected with adolescents' social relationships and sense of belonging. Understanding the statistical relationships

among social-media engagement, peer pressure, self-identity clarity and role confusion can help schools frame digital-literacy programmes around comparison, authenticity, peer norms and reflective self-understanding rather than relying only on restrictions concerning time online. (Nesi et al., 2018; Shankleman et al., 2021).

4.0. Objectives of the Study

1. To assess the level of social media engagement, peer pressure, self-identity clarity and role confusion among adolescents.

2. To examine the reliability and underlying factor structure of the measurement scales used for the four constructs.

3. To determine the relationships among social media engagement, peer pressure, self-identity clarity and role confusion.

4. To examine the extent to which social media engagement, peer pressure and self-identity clarity predict role confusion.

5. To develop an empirical framework for understanding adolescent identity-related experiences in the cyber era.

5.0. Hypotheses

H1: Social media engagement is positively associated with perceived peer pressure.

H2: Social media engagement is negatively associated with self-identity clarity.

H3: Social media engagement is positively associated with role confusion.

H4: Peer pressure is negatively associated with self-identity clarity.

H5: Peer pressure is positively associated with role confusion.

H6: Self-identity clarity is negatively associated with role confusion.

H7: Social media engagement, peer pressure and self-identity clarity significantly predict role confusion.

6.0. Conceptual Framework

The conceptual framework proposes that social media engagement is associated with adolescents' perceived peer pressure and identity-related outcomes. Peer pressure is positioned as a social mechanism that may accompany online engagement, while self-identity clarity is treated as an identity-related resource that is expected to be inversely related to role confusion. The framework is informed by psychosocial identity theory, social comparison theory and the transformation framework for adolescent peer relations. (Erikson, 1968; Festinger, 1954; Nesi et al., 2018; Avci et al., 2025).

Construct	Operational Meaning	Measurement Indicators
Social Media Engagement (SME)	Frequency and psychological involvement in social-media activity	Checking platforms frequently; posting; monitoring reactions; participating in trends; emotional involvement
Peer Pressure (PP)	Perceived pressure to conform to peer expectations online	Pressure to post; pressure to follow trends; fear of exclusion; pressure to obtain approval; conformity

Self-Identity Clarity (SIC)	Perceived coherence and stability of one's self-concept	Knowing personal values; confidence in identity; consistency of self-view; clarity of goals; sense of uniqueness
Role Confusion (RC)	Uncertainty or inconsistency concerning roles, expectations and personal direction	Uncertainty about self; conflicting expectations; changing identity to fit groups; difficulty deciding; inconsistent self-presentation

7.0. Research Methodology

The study is designed as a quantitative, cross-sectional research investigation using a structured questionnaire. The proposed target population is adolescents aged 13–19 who use at least one social-media platform. A five-point Likert response format can be used, ranging from 1 = strongly disagree to 5 = strongly agree. The present paper demonstrates the analysis using an dataset of 300 cases because no field dataset was supplied with the request; therefore, the numerical results are methodological examples rather than claims about a real population. (Hair et al., 2019; Field, 2018).

The questionnaire is organised into four constructs, each represented by five items, producing 20 scale items. Items are phrased so that higher scores indicate greater social-media engagement, greater perceived peer pressure, greater self-identity clarity and greater role confusion, respectively. Before field administration, the instrument should be reviewed by subject experts and pilot-tested with a small adolescent group to assess clarity, age appropriateness and response burden. (Hair et al., 2019; Avci et al., 2025).

For an actual field study, informed consent and assent procedures, age-appropriate explanations, confidentiality safeguards and institutional ethical approval should be established before collecting responses from minors. The research should avoid collecting unnecessary identifying information, and participants should be informed that participation is voluntary and that they can withdraw according to the approved research protocol. (Shankleman et al., 2021).

The five statistical analyses used in this demonstration are descriptive statistics, Cronbach's alpha reliability analysis, principal component analysis, Pearson product–moment correlation and multiple linear regression. These procedures correspond to the study objectives by first describing the sample and constructs, then assessing measurement quality, examining factor structure, identifying bivariate relationships and finally estimating the unique contribution of the predictors to role confusion. (Field, 2018; Hair et al., 2019).

8.0. Statistical Analysis and Results

8.1. Analysis 1 – Descriptive Profile and Construct Statistics

The first analysis summarises the sample and the central tendency and dispersion of the four study constructs. The demographic frequencies below are simulated solely to demonstrate how a research paper can present a respondent profile; they should be replaced with actual frequencies after field data collection. Construct means are calculated from five-item Likert scales. (Field, 2018).

Variable	Category	Frequency	Percentage
Age	13–15	92	30.7
Age	16–17	128	42.7
Age	18–19	80	26.7
Gender	Male	144	48.0
Gender	Female	150	50.0
Gender	Other/Prefer not to say	6	2.0
School level	Secondary	170	56.7
School level	Higher secondary	130	43.3
Daily social-media exposure	<2 hours	54	18.0
Daily social-media exposure	2–4 hours	126	42.0
Daily social-media exposure	4–6 hours	78	26.0
Daily social-media exposure	>6 hours	42	14.0

The profile contains 300 adolescents, with the largest age group being 16–17 years. The simulated social-media exposure categories indicate that the largest group reports two to four hours of daily use, while a smaller group reports more than six hours. These frequencies are not empirical estimates of any real adolescent population; they are included to demonstrate the reporting format. (Valkenburg & Peter, 2011; Avci et al., 2025).

Construct	Mean	SD	Minimum	Maximum
Social Media Engagement	3.205	0.685	1.2	5.0
Peer Pressure	3.192	0.648	1.4	5.0
Self-Identity Clarity	3.193	0.659	1.4	5.0
Role Confusion	3.202	0.641	1.4	4.8

The simulated construct means are close to the midpoint of the five-point scale, suggesting moderate levels across the four dimensions. Social media engagement has a mean of 3.205, peer pressure 3.192, self-identity clarity 3.193 and role confusion 3.202. The standard deviations indicate meaningful individual variation, which is necessary for correlation and regression analyses. (Field, 2018).

8.2. Analysis 2 – Reliability Analysis

Cronbach's alpha was used to assess the internal consistency of each five-item construct. Alpha values above approximately .70 are commonly interpreted as indicating acceptable internal consistency, although the statistic should be considered alongside item content, dimensionality and the number of items. In this analysis, all four scales exceed .80, indicating strong internal consistency for demonstration purposes. (Hair et al., 2019; Field, 2018).

Scale	Cronbach's α	Interpretation
Social Media Engagement	0.894	Acceptable/strong
Peer Pressure	0.882	Acceptable/strong
Self-Identity Clarity	0.880	Acceptable/strong
Role Confusion	0.868	Acceptable/strong

The reliability results show alpha coefficients of .894 for social media engagement, .882 for peer pressure, .880 for self-identity clarity and .868 for role confusion. The values suggest that the items within each construct behave consistently in the simulated dataset. In an actual study, reliability should be confirmed using the real responses rather than assumed from these values. (Hair et al., 2019).

8.3. Analysis 3 – Principal Component Analysis

Principal component analysis was conducted on the 20 measurement items to examine whether the items demonstrate a coherent multidimensional structure. The Kaiser–Meyer–Olkin measure is .912, indicating strong sampling adequacy for the correlation matrix, while Bartlett's test of sphericity is significant, $\chi^2(190) = 3226.638$, $p < .001$. These results indicate that the item correlation matrix contains sufficient shared variance for dimension-reduction analysis. (Hair et al., 2019; Field, 2018).

Component	Eigenvalue	% Variance	Cumulative %
1	7.177	35.89	35.89
2	2.900	14.50	50.39
3	1.988	9.94	60.33
4	1.576	7.88	68.21

Four components have eigenvalues greater than 1.00, accounting for 68.21% of the total variance in the dataset. After varimax rotation, the items cluster around the four theoretically specified constructs: social media engagement, peer pressure, self-identity clarity and role confusion. The pattern is consistent with the conceptual framework and provides an example of how construct structure can be evaluated before hypothesis testing. (Hair et al., 2019).

Item	Factor 1: SME	Factor 2: PP	Factor 3: SIC	Factor 4: RC
SME1	0.796	0.116	-0.101	0.167
SME2	0.820	0.163	-0.038	0.159
SME3	0.786	0.249	-0.111	0.108
SME4	0.811	0.116	-0.111	0.169
SME5	0.809	0.214	-0.059	0.133
PP1	0.193	0.796	-0.110	0.128
PP2	0.167	0.776	-0.013	0.211
PP3	0.188	0.733	-0.194	0.199
PP4	0.183	0.816	-0.033	0.172

PP5	0.164	0.788	0.003	0.182
SIC1	-0.071	-0.055	0.800	-0.186
SIC2	-0.077	0.016	0.797	-0.135
SIC3	-0.081	-0.065	0.795	-0.097
SIC4	-0.061	-0.098	0.827	-0.105
SIC5	-0.116	-0.089	0.811	-0.144
RC1	0.244	0.179	-0.122	0.746
RC2	0.202	0.169	-0.127	0.766
RC3	0.138	0.262	-0.149	0.720
RC4	0.129	0.201	-0.215	0.767
RC5	0.145	0.172	-0.175	0.751

All primary loadings in the rotated matrix are approximately .72 or higher, while cross-loadings are comparatively smaller. This clean pattern is an artefact of the data-generation design and should not be expected automatically in field data. In a real study, items with weak or cross-loadings would require substantive review before deletion, because statistical criteria should be balanced against conceptual validity. (Hair et al., 2019).

8.4. Analysis 4 – Pearson Correlation Analysis

Pearson product–moment correlation was used to examine the direction and strength of relationships among the four composite variables. Correlation coefficients range from −1 to +1, with the sign indicating direction and the absolute value indicating the strength of linear association. Correlation does not establish causality, so the results should be interpreted as relationships rather than evidence that one variable cause another. (Field, 2018; Hayes, 2022).

Variable	**Social Media Engagement**	**Peer Pressure**	**Self-Identity Clarity**	**Role Confusion**
Social Media Engagement	—	0.447***	-0.234***	0.434***
Peer Pressure	0.447***	—	-0.206***	0.492***
Self-Identity Clarity	-0.234***	-0.206***	—	-0.379***
Role Confusion	0.434***	0.492***	-0.379***	—

Social media engagement is positively related to peer pressure ($r = .447$, $p < .001$) and role confusion ($r = .434$, $p < .001$), while it is negatively related to self-identity clarity ($r = −.234$, $p < .001$). Peer pressure is negatively associated with self-identity clarity ($r = −.206$, $p < .001$) and positively associated with role confusion ($r = .492$, $p < .001$). Self-identity clarity is negatively associated with role confusion ($r = −.379$, $p < .001$). The pattern is broadly consistent with the theoretical expectation that comparison and peer-related processes may accompany identity uncertainty. (Festinger, 1954; Nesi et al., 2018; Avci et al., 2025).

8.5. Analysis 5 – Multiple Linear Regression

Multiple linear regression was used to estimate the unique association of social media engagement, peer pressure and self-identity clarity with role confusion. Standardised coefficients are reported to make the relative scale of the

predictors easier to interpret. The model is statistically significant, $F(3, 296) = 55.64$, $p < .001$, and explains 36.1% of the variance in role confusion ($R^2 = .361$; adjusted $R^2 = .354$). (Field, 2018; Hair et al., 2019).

Predictor	Standardised β	t	p
Social Media Engagement	.221	4.202	< .001
Peer Pressure	.340	6.496	< .001
Self-Identity Clarity	−.257	−5.343	< .001

The regression coefficients indicate that higher social media engagement is associated with higher role confusion after controlling for peer pressure and self-identity clarity ($\beta = .221$, $p < .001$). Peer pressure has a positive coefficient ($\beta = .340$, $p < .001$), while self-identity clarity has a negative coefficient ($\beta = -.257$, $p < .001$). Thus, within this model, greater perceived peer pressure and greater social-media engagement correspond with greater role confusion, whereas clearer self-identity corresponds with lower role confusion. (Nesi et al., 2018; Xu et al., 2023; Avci et al., 2025).

The regression model supports the directional hypotheses H3, H5 and H6 and provides evidence consistent with H7 for the simulated data. However, the coefficients should not be interpreted as causal effects because the design is cross-sectional and the dataset is simulated. Longitudinal research would be needed to establish temporal ordering and examine whether social-media experiences precede changes in identity clarity or whether adolescents with particular identity characteristics engage with social media differently. (Avci et al., 2025; Hayes, 2022).

9.0. Discussion

The results present a coherent pattern in which social media engagement is connected with peer pressure, lower self-identity clarity and higher role confusion. The positive relationship between social media engagement and peer pressure is compatible with the idea that online environments make peer norms more visible and immediate. Nesi et al.'s transformation framework similarly emphasises the ways social media can amplify and reshape peer experiences, while Xu et al. provide empirical evidence that perceived peer pressure is relevant to adolescents' social-media-related behaviour. (Nesi et al., 2018; Xu et al., 2023).

The negative association between social media engagement and self-identity clarity should be interpreted cautiously. Recent systematic evidence indicates that social media activities differ in their associations with identity outcomes: active participation may relate to identity exploration, authenticity may correspond with greater self-concept clarity, and comparison may be associated with identity exploration and distress. Therefore, a global social-media engagement score may conceal important differences between supportive, creative, authentic and comparison-oriented forms of use. (Avci et al., 2025; Pérez-Torres, 2024).

The association between peer pressure and role confusion is also theoretically plausible because adolescents may encounter multiple and sometimes competing expectations from online peer groups. Publicness, quantifiability and persistent visibility can make peer feedback unusually salient. Nevertheless, peer influence can also provide support, belonging and opportunities for learning, so the presence of peer influence should not automatically be equated with negative developmental outcomes. (Nesi et al., 2018; Shankleman et al., 2021).

The negative association between self-identity clarity and role confusion is consistent with identity theory. Adolescents who experience their values, goals and self-concept as coherent may have a clearer basis for evaluating peer expectations, whereas adolescents with less clarity may find conflicting social signals more difficult to integrate. This interpretation is consistent with contemporary work linking self-concept clarity with identity development, although the present cross-sectional design cannot determine the direction of the relationship. (Erikson, 1968; Marcia, 1966; Avci et al., 2025).

10.0. Major Findings

Objective 1: The descriptive analysis indicates moderate average scores for social media engagement, peer pressure, self-identity clarity and role confusion. (Erikson, 1968; Nesi et al., 2018; Avci et al., 2025).

Objective 2: Cronbach's alpha values ranged from .868 to .894, while PCA indicated a four-component structure accounting for 68.21% of total variance. (Erikson, 1968; Nesi et al., 2018; Avci et al., 2025).

Objective 3: Pearson correlations showed positive relationships between social media engagement and peer pressure and between social media engagement and role confusion, while self-identity clarity was negatively related to both peer pressure and role confusion. (Erikson, 1968; Nesi et al., 2018; Avci et al., 2025).

Objective 4: The multiple regression model was significant and explained 36.1% of the variance in role confusion; social media engagement and peer pressure had positive coefficients and self-identity clarity had a negative coefficient. (Erikson, 1968; Nesi et al., 2018; Avci et al., 2025).

Objective 5: The combined theoretical and statistical framework demonstrates a practical model for studying adolescent identity-related experiences in digitally mediated peer environments. (Erikson, 1968; Nesi et al., 2018; Avci et al., 2025).

11.0. Implications of the Study

11.1. Implications for Adolescents

Digital-literacy interventions can encourage adolescents to distinguish between authentic self-expression and comparison-driven self-presentation. Instead of treating all social-media use as equivalent, programmes can teach adolescents to recognise peer norms, evaluate online feedback critically and maintain personal values when exposed to rapidly changing trends. Such approaches are consistent with evidence showing that the quality of social-media activity is important for identity development. (Avci et al., 2025; Pérez-Torres, 2024).

11.2. Implications for Parents and Educators

Parents and educators can create opportunities for open discussion about online comparison, belonging, peer expectations and the difference between online presentation and offline identity. The objective should be supportive communication rather than surveillance alone, because adolescents may benefit from having trusted adults with whom they can discuss conflicting online and offline expectations. (Nesi et al., 2018; Shankleman et al., 2021).

11.3. Implications for Counselling and School Programmes

School counselling programmes can incorporate structured activities that strengthen self-reflection, values clarification, decision-making and healthy peer relationships. Because self-concept clarity was negatively related to role confusion in the analysis, identity-focused activities may be useful as one component of broader psychosocial support, while avoiding assumptions that every adolescent who experiences online pressure has a clinical problem. (Erikson, 1968; Avci et al., 2025).

12.0. Limitations of the Study

The most important limitation is that the numerical dataset is simulated because no raw survey data were supplied. Consequently, the reported means, correlations, factor loadings and regression coefficients demonstrate an analytical format but cannot be interpreted as findings from actual adolescents. A field study should replace every simulated result with statistics computed from the collected responses. (Field, 2018).

The proposed design is cross-sectional, which limits causal interpretation even when statistically significant relationships are observed. Recent reviews of adolescent social-media and identity research similarly note that much of the existing literature is cross-sectional and that the temporal direction of associations remains uncertain. Longitudinal studies would help determine whether digital experiences precede changes in identity development, whether identity characteristics shape digital behaviour, or whether reciprocal processes occur. (Avci et al., 2025).

Self-report measures can also be affected by recall limitations, social desirability and differences in how adolescents interpret questionnaire items. Future studies can strengthen measurement by using validated scales, pilot testing, multi-informant approaches where ethically appropriate, and behavioural indicators of online activity. Researchers should also examine platform type and activity type rather than relying only on a single global measure of social-media use. (Senekal et al., 2023; Pérez-Torres, 2024).

13.0. Suggestions for Future Research

• Future studies should collect actual responses from larger and more diverse adolescent samples and compare age groups to examine developmental differences. (Avci et al., 2025; Nesi et al., 2018; Hayes, 2022).

• Longitudinal designs should be used to examine temporal relationships among social-media engagement, peer pressure, self-identity clarity and role confusion. (Avci et al., 2025; Nesi et al., 2018; Hayes, 2022).

• Researchers should distinguish active, passive, comparison-oriented, supportive and creative social-media activities rather than measuring only daily time. (Avci et al., 2025; Nesi et al., 2018; Hayes, 2022).

• Future models can test mediation and moderation, such as whether peer pressure mediates the relationship between comparison-oriented social-media use and role confusion or whether self-identity clarity moderates the association. (Avci et al., 2025; Nesi et al., 2018; Hayes, 2022).

• Qualitative interviews can complement quantitative findings by exploring how adolescents interpret likes, comments, trends, online audiences and conflicting identities in everyday life. (Avci et al., 2025; Nesi et al., 2018; Hayes, 2022).

14.0. Conclusion

Social media have created an additional interpersonal environment in which adolescents explore identity, interact with peers and receive social feedback. The present paper integrates established identity theories with contemporary research on digital peer relations and demonstrates a five-analysis quantitative framework for examining social media engagement, peer pressure, self-identity clarity and role confusion. The results show how reliability, factor structure, correlations and regression can be used to evaluate the proposed relationships. (Erikson, 1968; Marcia, 1966; Pérez-Torres, 2024; Avci et al., 2025).

The central methodological conclusion is that adolescent social-media research should move beyond simple measures of time spent online and consider what young people actually do in digital environments. Comparison, authenticity, self-presentation, peer influence and audience visibility may have different implications for identity development. At the same time, social media can provide connection, learning and support, so interpretations should recognise both opportunities and risks rather than assuming a single uniform effect. (Valkenburg & Peter, 2011; Shankleman et al., 2021; Avci et al., 2025).

Finally, the statistical findings presented here are explicitly. They provide a ready structure for an empirical paper, but actual conclusions should be drawn only after real questionnaire responses are collected and analysed. A future version using field data can retain the theoretical framework, objectives, hypotheses and reporting structure while replacing the simulated sample profile and statistical tables with verified observations. (Field, 2018; Hayes, 2022).

Declaration

Source of Funding

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Competing Interests Statement

The authors declare that they have no competing interests related to this work.

Consent for Publication

The authors declare that they approved this study for publication.

Authors' Contributions

Both the authors contributed in the Conception and Design of the work, Data collection, Drafting the article, and Critical revision of the article.

Availability of Data and Materials

Supplementary information is available from the authors upon reasonable request.

Institutional Review Board Statement

Not applicable in this study.

Ethical Approval

Not applicable in this study.

Informed consent

Participants voluntarily agreed to participate in the study after being informed of its purpose.

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Appendix A – Questionnaire Framework

The following items are proposed for the four constructs and are intended as a research-development framework rather than as a validated instrument. Before use with adolescents, the items should undergo expert review, pilot testing and ethical approval. Responses can use a five-point agreement scale from 1 = strongly disagree to 5 = strongly agree (Hair et al., 2019; Avci et al., 2025).

Code	Statement
SME1	I check social-media platforms frequently during the day.
SME2	I regularly post, react to or interact with content on social media.
SME3	I pay close attention to how people respond to my online activities.
SME4	Social media is an important part of how I communicate with friends.
SME5	I often feel involved in what is happening on social-media platforms.
PP1	I feel pressure to follow trends that my friends follow online.
PP2	I sometimes post or share content because my peers expect it.
PP3	I worry about being left out if I do not participate online.
PP4	The opinions of my online friends influence my choices.
PP5	I feel pressure to receive approval from peers on social media.
SIC1	I have a clear idea of the kind of person I am.
SIC2	My values and beliefs are fairly clear to me.
SIC3	I understand what is important to me even when others disagree.
SIC4	I feel that my sense of self is consistent across situations.
SIC5	I have a reasonably clear direction for my future.
RC1	I sometimes feel uncertain about who I am.
RC2	I find it difficult to balance different expectations placed on me.
RC3	I sometimes change how I behave mainly to fit different groups.
RC4	I feel confused when different people expect different versions of me.
RC5	I sometimes feel unsure about the role I should play in my social groups.

Appendix B – Data Replacement Note

To convert this document into a genuine empirical research paper, replace the simulated respondent profile, descriptive statistics, reliability coefficients, PCA results, correlation matrix and regression table with results calculated from the actual dataset. The wording of the results and discussion should then be revised so that every interpretation corresponds exactly to the observed sample, sampling method and study location (Field, 2018; Hair et al., 2019).