

Psychological Effects of Instagram Use on Self-esteem among Adolescents in Masvingo Urban, Zimbabwe

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Abstract

This study examined how using Instagram affects self-esteem among adolescents in Masvingo Urban, Zimbabwe. Guided by the social comparison theory, the research addressed gaps in understanding Instagram's impact on youth mental health within a Zimbabwean setting. A mixed-methods approach applied surveys with 68 participants selected through stratified purposive sampling from five residential areas in Masvingo Urban. Semi-structured interviews with 10 participants (5 male, 5 female) representing diverse Instagram usage patterns were also utilised. Quantitative analysis revealed a weak negative correlation between Instagram use and self-esteem ($r = -0.24$, $p = 0.051$). Gender differences emerged, with females showing stronger negative correlations between social comparison and self-esteem ($r = -0.42$, $p < 0.01$) compared to males ($r = -0.22$, $p = 0.243$). Qualitative findings highlighted social comparison, validation seeking, and cultural conformity pressures embedded in unhu/ ubuntu values as key mechanisms. The study emphasised the need for culturally appropriate interventions that include media literacy programmes, community awareness campaigns, and approaches grounded in local communal values to support adolescent mental health in digital environments.

Keywords: adolescents, Instagram, self-esteem, social comparison, Zimbabwe, unhu/ ubuntu

Introduction

Adolescence represents a critical developmental period characterised by rapid identity formation and heightened sensitivity to peer evaluation (Meca et al., 2023). During this developmental stage, social interactions play a pivotal role in shaping self-perception. This is particularly so when using social media platforms such as Instagram. Instagram is a predominantly visual social media platform that was launched in 2010 and has rapidly become central to adolescent social interaction (Rogers, 2021). Unlike text-based social platforms such as X and WhatsApp, Instagram's in-built emphasis on curated visual content, filtered images, and idealised self-presentation creates unique psychological challenges for developing adolescents. The platform's core features, including photo sharing, visual filters, likes, and comments, directly engage with appearance-based social comparison processes that are

fundamental to adolescent self-evaluation (Yang, 2021). Research consistently demonstrates that visual social media platforms pose greater risks for body dissatisfaction and self-esteem issues compared to text-based platforms, as they facilitate direct appearance comparisons and promote unrealistic beauty standards (Roy et al., 2021).

The theoretical foundation for understanding Instagram's impact lies in Festinger's (1954) social comparison theory, which argues that individuals evaluate themselves through comparisons with others. Instagram provides an ideal environment for such comparisons, particularly upward comparisons with seemingly superior others, which can diminish self-worth. For adolescents, whose identity formation is still developing, these comparison processes can have profound implications for self-esteem and mental health.

This study addresses two primary objectives. First to examine the relationship between Instagram usage and self-esteem among adolescents in Masvingo Urban; and, secondly, to investigate gender differences in Instagram's impact on self-esteem.

The research holds significant relevance for both the academic community and the broader society. Adolescence is a formative period, making young people vulnerable to factors impacting their self-esteem (Ciampo et al., 2020). Low self-esteem is a known risk factor for various negative outcomes, including depression, anxiety, eating disorders, and academic underperformance (Arul & Rajkumar, 2014). Understanding Instagram's specific psychological effects is crucial for developing appropriate interventions and promoting mental well-being.

Furthermore, this research addresses a critical geographical and contextual knowledge gap. Although global research on social media's impact on adolescent mental health is growing, there is a notable scarcity of studies specifically focusing on the Zimbabwean setting, especially within smaller urban areas such as Masvingo. The experiences of adolescents in this specific cultural and socio-economic environment may differ from those in Western or other developing nations. This study contributes valuable localised data, offering insights into how cultural practises, resource availability, and local societal pressures might facilitate the relationship between Instagram use and self-esteem.

The findings of this research can serve as a critical evidence base for parents, educators, school counsellors, healthcare professionals, and policymakers. It can inform psycho-educational programmes, counselling approaches, and national guidelines for safe social media use. Moreover, the study's exploration of culturally appropriate interventions, particularly those

incorporating *unhu/ ubuntu* values, which emphasise interconnectedness and communal responsibility offers a unique contribution (Museka & Taringa, 2014).

The scope of this research was strictly limited to investigating the psychological effects of Instagram use on self-esteem among adolescents aged 13-19 years residing in Masvingo Urban, Zimbabwe. The study specifically explored the influence of exposure to idealised and filtered images and social comparison on self-esteem. Furthermore, the research did not extend to other social media platforms, nor did it encompass adolescents living outside of Masvingo Urban or those outside the defined age range. This study was limited to examining the general psychological impact of Instagram use on self-esteem.

Literature review

Social comparison theory was the key concept used in understanding the psychological effects of Instagram on self-esteem. It argues that individuals evaluate their own opinions, abilities, and characteristics by comparing themselves to others (Festinger, 1954). Instagram, with its highly visual and curated content, provides an abundance of opportunities for both upward social comparison (comparing oneself to someone perceived as superior) and downward social comparison (comparing oneself to someone perceived as inferior). Upward comparisons are prevalent on platforms showcasing idealised lives, bodies, and achievements, and are frequently linked to diminished self-esteem and body dissatisfaction (Roy, et al., 2021). The concept of problematic social media use or "addiction" is also relevant, describing excessive or compulsive engagement with platforms that can lead to negative consequences, including impaired psychological well-being. This can aggravate existing vulnerabilities and intensify the negative effects of social comparison.

Research consistently demonstrates Instagram's negative impact on adolescent self-esteem, primarily through social comparison mechanisms. Yang (2021), for instance, found a significant association between problematic Instagram use and diminished self-esteem, as well as body dissatisfaction, among American adolescents. This effect was particularly pronounced among females, highlighting the platform's visual emphasis and the prevalence of filtered, idealised images that worsen existing vulnerabilities in adolescent self-perception.

Verhoeven et al. (2019) demonstrated that Instagram use correlates with increased social comparison tendencies and decreased well-being among Dutch adolescents. Their research identified the passive consumption of others' content as particularly harmful, suggesting that it provides ample comparison opportunities without the reciprocal social benefits of active

engagement. Similarly, Fidan et al. (2021) found that problematic Instagram use among Turkish adolescents was mediated by loneliness and social comparison.

Gender differences consistently emerge across global studies. Adolescent girls are more vulnerable to Instagram's negative effects due to greater engagement with appearance-focused content and a higher tendency toward upward social comparisons (Charmaraman et al., 2021). This vulnerability stems from societal pressures around female appearance and Instagram's visual nature, which put more emphasis on appearance-based evaluation.

Limited but growing research from Africa reveals similar patterns. Boateng et al. (2025) found significant associations between social media use and adolescent sexual behaviours, suggesting that platforms such as Instagram influence identity formation beyond self-esteem. Peace and Ajike (2016) demonstrated links between social media engagement and mental health challenges, including depression and anxiety, often stemming from social comparison and cyberbullying experiences.

Within Zimbabwe, research by Museka and Taringa (2014) in Harare examined social media's impact on adolescent moral development. Their findings revealed predominantly detrimental effects of social media interactions on moral development, which correlates strongly with self-esteem. They also advocated for culturally grounded approaches incorporating *unhu/ ubuntu* values to mitigate negative effects. This research highlights the potential of indigenous value systems to inform intervention strategies. *Unhu/ ubuntu* values, emphasizing interconnectedness and communal responsibility, may offer protective factors against individualistic social comparison tendencies promoted by Instagram (Museka & Taringa, 2014).

The literature, therefore, strongly supports the notion that Instagram use can negatively impact adolescent self-esteem, largely driven by social comparison processes. The platform's highly visual nature, coupled with the prevalence of idealised and often unrealistic content, creates an environment ripe for upward social comparisons, leading to feelings of inadequacy, body dissatisfaction, and diminished self-worth (Roy, et al., 2021). This effect appears to be particularly pronounced among adolescent girls, who are often subjected to greater societal pressures regarding appearance and tend to engage more with appearance-focused content (Zheng et al., 2024).

The concept of problematic Instagram use further compounds these negative effects, indicating that excessive or uncontrolled engagement intensifies the psychological damage. Although

much of the foundational research originates from Western countries, emerging studies from Africa demonstrate similar trends. However, the African context also introduces the crucial element of cultural background, which can potentially moderate these effects. The emphasis on communal values, as highlighted by *unhu/ ubuntu* in Zimbabwe, offers a unique lens through which to explore potential protective factors or mediating influences not typically found in Western individualistic societies (Museka & Taringa, 2014).

Despite growing global awareness of Instagram's psychological effects, significant gaps remain in understanding these impacts within specific cultural settings, particularly in Zimbabwe. First, the vast majority of existing research focuses primarily on Western populations, potentially missing culturally specific issues and protective elements that may be present in non-Western settings. Even though some African studies exist, detailed research on Instagram's specific effects on self-esteem, separated by specific platforms and within particular demographics, remains limited.

Secondly, Masvingo Urban, with its blend of traditional and modern influences, represents an ideal, yet under-researched setting for examining how cultural values interact with Instagram's effects on the self-esteem of adolescents. Existing Zimbabwean research studies often provide a broader view of social media effects rather than a targeted examination of Instagram's specific impact on self-esteem. This study aims to directly address these identified gaps by providing localised, platform-specific insights into the psychological effects of Instagram use on self-esteem among adolescents in Masvingo Urban, Zimbabwe.

Methodology

This study employed a mixed-methods design to provide comprehensive understanding of Instagram's effects on the self-esteem of adolescents. The quantitative component examined relationships between variables, while qualitative data explored underlying mechanisms and cultural influences. This approach was selected to capture both statistical patterns and rich contextual understanding necessary for culturally appropriate interventions.

The target population comprised adolescents aged 13-19 residing in Masvingo Urban who actively used Instagram. Active use was defined as accessing Instagram at least three times weekly and maintaining a personal account for a minimum of six months.

Stratified purposive sampling was employed to recruit 78 participants from five residential areas in Masvingo Urban, namely Rujeko, Runyararo, Rhodene, Eastvale and Mucheke.

Stratification ensured location representation as well as age distribution across the adolescent spectrum. Sample size was determined through power analysis ($\alpha=0.05$, $\beta=0.80$, medium effect size $r=0.30$), indicating minimum requirement of 64 participants.

Ten participants (5 male, 5 female) were purposively selected from the quantitative sample to represent diverse Instagram usage patterns with light users (1-2 hours/day, $n=3$), moderate users (3-4 hours/day, $n=4$), and heavy users (5+ hours/day, $n=3$). This approach ensured diverse perspectives across usage intensity levels.

Data collection instruments

Quantitative instrument

A structured questionnaire comprising three sections, namely demographic information, Instagram usage patterns, and self-esteem, was used. Social comparison tendencies were measured using a composite scale incorporating items on appearance comparison, lifestyle comparison, and validation seeking behaviours.

Qualitative instrument

Semi-structured interview guides explored Instagram usage motivations, social comparison experiences, cultural influences on online behaviour, and perceived impacts on self-worth. Questions were designed to elicit rich narratives about personal experiences while maintaining cultural sensitivity.

Data collection procedures

Data collection occurred over four weeks in September 2024. Quantitative surveys were administered with researcher supervision. Qualitative interviews were conducted individually in private settings, lasting 30-45 minutes each. All interviews were conducted with consent and in participants' preferred language of either English or Shona.

Data analysis

Quantitative analysis

Data was analysed using R software. Descriptive statistics characterised sample demographics and Instagram usage patterns. Pearson correlations examined relationships between Instagram use, social comparison, and self-esteem. Gender-specific analyses were conducted to identify differential effects. Statistical significance was set at $p < 0.05$.

Qualitative analysis

Interview transcripts underwent thematic analysis following Braun and Clarke (2006) guidelines. The process involved familiarisation, initial coding, theme development, and refinement. Discourse analysis examined language patterns reflecting self-perception and cultural influences. Inter-coder reliability was established through independent coding by two researchers with 87% agreement.

Ethical considerations

Informed consent was secured from all participants, with parental consent for those under 18. Participants received comprehensive information about study purposes, procedures, risks, and benefits. Confidentiality was maintained through pseudonyms and secure data storage. Participants were notified that they could withdraw at any time without penalty.

Results

Sample characteristics

The final sample comprised 78 adolescents across quantitative (n=68) and qualitative (n=10) components. Ages ranged from 13-19 years (M=17.38, SD=1.58), representing late adolescence, a critical period for identity formation and social media engagement. The age distribution was relatively normal, with the majority of participants (64%) falling within the 16-18 year range, indicating representation of mid-to-late adolescence when social comparison tendencies typically peak. Gender distribution was 54.5% female (n=43) and 45.5% male (n=35).

Instagram usage patterns

Gender differences emerged in Instagram usage reasons (Figure 1). Females primarily used Instagram for sharing personal photos and experiences (n=15), maintaining social connections (n=10), and following celebrities/influencers (n=10). Males predominantly engaged in passive content consumption, browsing memes and entertainment content (n=12), followed by celebrity/influencer following (n=8) and social connection (n=6).

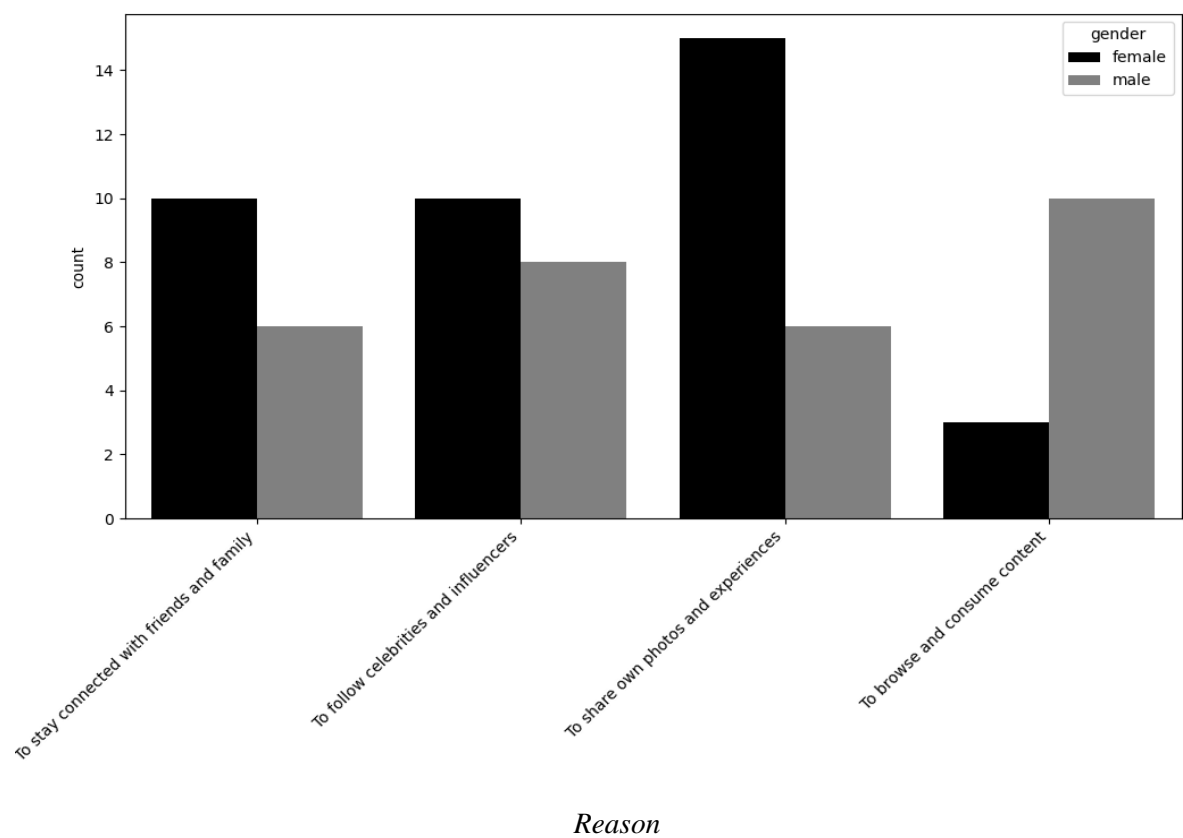


Figure 1: Reasons for using Instagram among adolescents in Masvingo Urban (Authors, 2025)

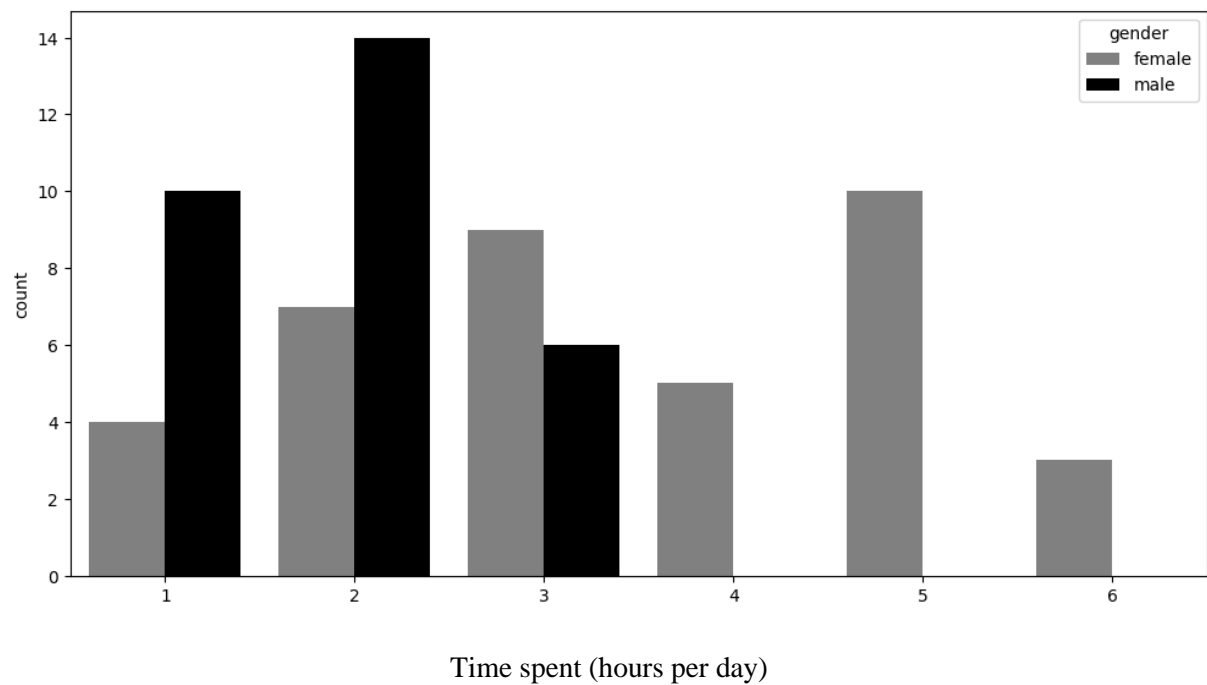


Figure 2: Time spent on Instagram per day among adolescents in Masvingo Urban (Authors, 2025)

Frequency of Instagram use

Females demonstrated significantly higher daily Instagram usage compared to males (Figure 2). Female usage peaked at 5 hours daily, with broader distribution across 1-6 hours. Males clustered toward lower usage (1-3 hours daily), suggesting more sporadic engagement patterns.

Quantitative findings

Table 1 shows the findings from Pearson correlation tests to examine the relationship between Instagram usage and self-esteem scores. Time spent on Instagram showed weak negative correlation with self-esteem ($r = -0.24$, $p = 0.051$). Frequency of use showed weak non-significant correlation with self-esteem ($r = -0.18$, $p = 0.12$)

Table 1: Results of Pearson correlation tests

Variable	Correlation (r)	p-value	Interpretation
Time Spent (hours/day)	-0.24	0.051	Weak negative correlation; slightly significant.
Frequency of Use (often)	-0.18	0.12	Weak negative correlation; not significant.

To examine the relationship between social comparison and self-esteem scores by gender, Pearson correlation tests were conducted and the results are shown in Table 2.

Table 2: Summary table of correlation results

Group	Correlation (r)	p-value	Interpretation
Combined	-0.36	< 0.01	Moderate negative correlation; significant
Males	-0.22	0.243	Weak negative correlation; not significant
Females	-0.42	< 0.01	Moderate negative correlation; significant

A moderate negative correlation was found between social comparison scores and self-esteem scores in the combined sample ($r = -0.36$, $p < 0.01$). For the male subgroup, the correlation between social comparison scores and self-esteem scores was weak and not statistically significant ($r = -0.22$, $p = 0.243$). Among females, there was a moderate negative correlation between social comparison scores and self-esteem scores ($r = -0.42$, $p < 0.01$). This relationship was statistically significant, indicating that higher levels of social comparison are strongly associated with lower self-esteem in female adolescents.

Qualitative themes

Theme 1: Social comparison

Participants consistently reported comparing themselves with Instagram content creators and peers. Female participants particularly emphasised appearance-based comparisons: "When I see people posting perfect pictures, I feel like I'm not good enough" (Female, 17). Male participants showed less intense comparison experiences, focusing more on lifestyle rather than appearance.

Theme 2: Validation seeking behaviours

Participants described reliance on likes and comments for self-worth validation. "If my post doesn't get enough likes, I feel like people don't care about me" (Male, 15). This external validation dependency was evident across genders, but appeared more pronounced among heavy users.

Theme 3: Cultural conformity pressures

Participants reported feeling obligated to maintain appropriate online personas due to family oversight and cultural expectations. "Because my elder brothers are on Instagram, I feel obligated to post only appropriate and decent pictures" (Female, 18). This reflects *unhu/ ubuntu* values emphasising communal responsibility and appropriate behaviour.

Theme 4: Authenticity tensions

Participants struggled between authentic self-expression and curated self-presentation. Many described maintaining "fake" or idealised online personas while feeling disconnected from their authentic selves. This tension was particularly acute among females engaging in heavy usage patterns.

Summary of key findings

The study revealed weak to moderate negative correlations between Instagram usage and adolescent self-esteem. Social comparison processes emerged as more influential than simple usage frequency. Gender differences were pronounced and consistent across quantitative and qualitative measures, with females demonstrating significantly stronger negative correlations between social comparison and self-esteem ($r = -0.42$ vs. $r = -0.22$ for males). Cultural factors, particularly *ubuntu/ unhu* values, emerged as important influences that both shield and complicate social media experiences among Zimbabwean adolescents. The integration of traditional cultural values with contemporary digital platforms creates unique tensions around

authenticity, family expectations, and peer approval that distinguish this population from Western samples typically studied in social media research.

Discussion

The weak negative correlation between Instagram use and self-esteem ($r = -0.24$, $p = 0.051$) suggests that, while Instagram usage may negatively impact self-esteem, the relationship is modest and marginally significant. This finding aligns with social comparison theory (Festinger, 1954), where females engage in upward comparisons with idealised profiles, potentially harming self-esteem, while males may prioritise humour or non-personal content, buffering negative effects (Charmaraman et al., 2021; Avci et al., 2014). The marginal significance level indicates that the relationship exists, but varies considerably across individuals, supporting person-centred rather than platform-centred approaches to understanding social media impacts.

The stronger correlation between social comparison tendencies and self-esteem ($r = -0.36$, $p < 0.01$) suggests that how individuals engage with Instagram matters more than mere usage frequency. This supports theoretical predictions that comparison processes, rather than platform exposure alone, drive negative psychological outcomes (Avci et al., 2014).

Gender differences reveal important distinctions. Females showed significantly stronger negative correlations between social comparison and self-esteem ($r = -0.42$, $p < 0.01$) compared to males ($r = -0.22$, $p = 0.243$). This suggests that social comparison has limited impact on self-esteem among male adolescents in this sample, whereas girls appear more vulnerable to appearance-based comparisons (Charmaraman et al., 2021).

The qualitative data provides crucial context for understanding these gender differences. Female participants' detailed descriptions of appearance-based comparison processes, systematic self-evaluation against idealised images, and elaborate content curation behaviours suggest that Instagram engagement involves more intensive psychological processing among females. Male participants' focus on lifestyle comparisons and more compartmentalised evaluation processes may explain their relative resilience to self-esteem impacts.

These findings have important implications for intervention development, suggesting that gender-specific approaches may be necessary. Interventions targeting female adolescents should focus particularly on appearance-related comparison processes and media literacy

skills, while approaches for males might emphasise general critical thinking about social media content and lifestyle comparison awareness.

The emergence of cultural conformity as a distinct theme highlights how *unhu/ ubuntu* values shape Instagram experiences in Masvingo Urban. *Ubuntu/unhu* values appear to provide some protection against excessive individualistic comparison by emphasising communal identity and shared responsibility. Participants' descriptions of family oversight and community expectations suggest that traditional Zimbabwean socialisation patterns create natural boundaries around self-presentation and social comparison. However, these same values also create pressures for appropriate self-presentation that can restrict authentic expression and intensify authenticity tensions.

The integration of traditional cultural values with contemporary digital platforms creates unique psychological challenges not captured in existing Western-based research. Adolescents must navigate between authentic self-expression, peer approval, family expectations, and cultural appropriateness.

These findings highlight the importance of cultural context in Instagram and wider social media research. They suggest that theories developed in Western contexts may require some modification for non-Western populations. The role of *ubuntu/unhu* values demonstrates that communal cultural backgrounds can fundamentally alter social media experiences, creating both protective factors and unique vulnerabilities not present in individualistic cultures.

Future research should examine how different cultural values systems interact with social media platforms to produce varying psychological outcomes. The assumption that social media impacts are universal may be a generalisation, and culturally-adapted theories and interventions may be necessary for effective support of diverse adolescent populations.

Limitations of the study

The study's relatively small sample size (n=78) may limit generalisation to wider adolescent populations. Rural adolescents, or those in other Zimbabwean regions may experience different relationships between social media usage and psychological wellbeing. The urban based sample limits understanding of how factors such as rural/urban residence might affect these relationships.

The study's focus on Instagram limits generalisation to other social media platforms, which may have different features, user demographics, and psychological impacts. TikTok, X,

Facebook, and other platforms popular among adolescents may produce different patterns of usage and psychological outcomes.

Recommendations

Results suggest the need for targeted interventions addressing social comparison tendencies, particularly among female adolescents. Media literacy programmes should focus on critical evaluation of idealised Instagram content and recognition of filtering/editing techniques. Community-based approaches incorporating *unhu/ ubuntu* values could provide culturally appropriate frameworks for healthy social media engagement.

These findings underscore the importance of addressing social comparison tendencies, particularly among female adolescents, when designing interventions to mitigate negative social media effects. Evidence-based approaches should incorporate cognitive-behavioural techniques to help adolescents recognise and challenge social comparison thoughts, develop realistic self-evaluation standards, and build self-esteem from internal rather than external sources.

Media literacy programmes should focus on helping adolescents understand the curated nature of social media content, the use of photo editing and filtering technologies, and the strategic presentation involved in Instagram and other social media posts. Skills training should include critical evaluation of social media content and recognition of comparison triggers.

Given the significant role of family oversight and cultural values identified in this study, interventions should incorporate family-based components. Parent education programmes should address appropriate social media monitoring, communication about online experiences, and support for healthy digital citizenship.

Community-based interventions should make use of *ubuntu/ unhu* values to promote positive social media usage. Programmes emphasising communal responsibility, mutual support, and collective wellbeing could help channel traditional Zimbabwean values toward protective rather than restrictive influences on social media experiences.

Schools should integrate comprehensive digital citizenship and mental health curricula that address social media's psychological impacts. Educational programmes should be developmentally appropriate, culturally sensitive, and gender-informed, recognising the different vulnerabilities and usage patterns identified in this research.

This study demonstrates that Instagram's impact on adolescent self-esteem is facilitated by social comparison processes rather than usage frequency alone. Gender differences are significant, with females showing greater vulnerability to negative effects. Cultural values, particularly *unhu/ ubuntu* principles, play a crucial mediating role in how social media affects Zimbabwean adolescents. Future interventions must address both individual psychological processes and cultural contexts to effectively support adolescent wellbeing in digital environments.

Conclusions

This study provides important insights into Instagram's effects on the self-esteem of adolescents in Masvingo urban. The weak negative correlation between Instagram use and self-esteem, combined with stronger relationships between social comparison and self-worth, suggests that engagement quality matters more than quantity. Gender differences highlighting female vulnerability to comparison-based effects require targeted intervention approaches.

The unique contribution of cultural conformity pressures rooted in *unhu/ ubuntu* values demonstrates how local cultural contexts shape social media experiences. This finding emphasises the need for culturally grounded interventions that make use of traditional values while addressing contemporary digital challenges.

Proposed interventions include implementing media literacy programmes in educational institutions, developing community awareness campaigns about healthy social media use, and creating culturally appropriate frameworks incorporating *unhu/ ubuntu* values to promote authentic self-expression while maintaining communal responsibility. Future research should examine intervention effectiveness, explore rural-urban differences in social media impacts, and expanding research to Zimbabwean adolescents in rural areas.

These findings contribute to growing evidence that social media impacts are neither universally positive nor negative, but depend on complex interactions between individual characteristics, usage patterns, cultural contexts, and platform features. Understanding these relationships is crucial for developing effective approaches to support adolescent wellbeing in our increasingly digital world.

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