Original Paper

Using Affect Control Theory to Explore the Relationships Between Social Media and Well-Being in Young Women: Cross-Sectional Survey Study

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Abstract

Background: The rapid growth of social media use raises concerns about its impact on well-being, particularly among young women, who have been found to be disproportionately affected by social comparison. There is recent evidence suggesting that the effects of social comparisons extend beyond body image and appearance to general self-worth, including global self-esteem, depression, and anxiety. This highlights a pressing need for adaptable and replicable methods to probe the associations among self-presentation, evaluation, and mental well-being.

Objective: The purpose of this study was to test Affect Control Theory (ACT) as a model to quantify how young women present and perceive themselves as well as other young women on Instagram and how this is related to their psychological well-being.

Methods: Participants who identified as women (N=35) completed a survey where they were asked to rate themselves, their Instagram profiles, and the Instagram profiles of 10 others using the ACT-based Evaluation, Potency, and Activity dimensions. After rating, each participant completed the Rosenberg Self-Esteem Scale, the Patient-Reported Outcomes Measurement Information System Depression scale (Short Form 4a), and the Social Anxiety Scale for Social Media Users.

Results: Participants chose words describing their Instagram profiles that were significantly more active than the words describing themselves (P<.001), with a Hodges-Lehmann estimate of 1.03, the only comparison to survive adjustment for multiple comparisons. Greater discrepancies in Potency and Activity, both between women's self-ratings and their own profiles and between their self-ratings and their ratings of other women, were associated with higher social anxiety and lower self-esteem. Discrepancies were not associated with depressive symptoms.

Conclusions: Findings highlight the potential of ACT to model online behaviors and their impact in the context of health psychology research.

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Keywords: social media; self-presentation; self-perception; women; self-comparison; well-being

Introduction

Social media has become a constant presence in everyday life. Instagram, a popular app for content sharing, attracted over 3 billion active users in 2025, making it the world's third most used and influential social platform [1,2]. This rapid growth has raised significant concerns about its impact on individuals' mental well-being. Sharing photos and videos of one's life on social media platforms facilitates participation in social comparison, which contributes to the negative impact of social media. Previous studies have found associations between frequent social media use and increased

experiences of psychological distress and depressive and anxiety symptoms [3-8]. In addition, those who engage in higher social comparison experience lower self-esteem and increased feelings of social anxiety [9,10].

Continuous exposure to social media can contribute to a sense of isolation as individuals may feel disconnected from reality or overwhelmed by the pressure to present a perfect image online. Self-presentation refers to the way in which people attempt to present themselves to control or shape how others may view them [11]. Users actively curate which aspects of the self they wish to disclose, as well as how idealized or authentic that disclosure appears online. Inauthentic self-presentation on Facebook was found to be associated with low self-esteem and heightened levels of social anxiety, whereas authentic and positive self-presentation was associated with increased levels of self-esteem and perceived social support [12]. Platforms such as Instagram tend to favor curated self-presentation as users can select and edit content to create a version of the self that they wish others to perceive. Previous research has linked false self-presentation with depression, anxiety, and stress [13], while viewing others' self-representations on social media has been associated with lower subjective well-being [14].

Social media by its nature invites social comparison, often focused on one's appearance and body image, an experience that has been found to affect young women in particular. A considerable amount of literature has presented the effects on women's body image and self-esteem from exposure to images posted on social media such as Facebook and Instagram [15-25], including preteenage girls [26], female high school students [27], and female undergraduate students [28,29]. Being exposed to idealized images that are portrayed on Instagram leads to an upward social comparison and is consistently linked to body and appearance dissatisfaction for young women [15]. The negative body image that young women may develop from using social media can decrease their self-esteem as they experience greater gaps between their current and ideal body figures [23] and can lead to a lower mood [30]. A meta-analysis of social media exposure to upward comparison targets found consistent negative effects on body image, self-esteem, and mental health outcomes such as depression and anxiety, reflecting the continued emphasis on appearance as the primary factor of comparison in this area [31]. While previous literature provides evidence that social comparison online is harmful for young women, little is known about whether the same effects extend to aspects other than body image more broadly [32].

A growing body of work suggests that mental distress resulting from comparisons to others is not specific to body image and appearance. Le Blanc-Brillon et al [33] found that exposure to upward comparisons on Instagram mediated declines in global self-esteem, which reflects a person's general sense of self-worth, but no significant mediation was found for physical self-esteem. Guo et al [32] found that youth with lower self-esteem engaged more in upward social comparison of ability and opinion. It was found that upward comparisons on social networking platforms were associated with negative social comparison and depressive symptoms over time, which resulted from users' self-assessment of success compared to others rather than from content focused on appearance [34,35]. Lower self-acceptance was also identified to be significantly associated with higher social comparison and increased levels of depression and anxiety [36]. Together, these findings suggest that appearance-specific constructs may only capture a part of the impact of social comparison, highlighting a need for a more general understanding of its association with young women's self-esteem, depression, and anxiety.

Affect Control Theory (ACT) offers a framework to explore this general process by evaluating one's self-view, self-presentation, and perceived view of others online. ACT proposes that every interaction we have with a certain person, concept, or event in our lives evokes affective meanings [37]. These affective meanings can be rated along three dimensions to provide us with a stable meaning that can be understood across many cultures: Evaluation (good vs bad), Potency (powerful vs weak), and Activity (lively vs quiet), also known as the Evaluation, Potency, and Activity (EPA) scale [38]. Rather than treating comparison as a domain-specific judgment, such as appearance, ACT models evaluation of the self and others along the EPA scale. An individual's ratings across these three dimensions produce a numerical EPA profile that captures the affective meaning of a given identity, behavior, or object within a shared cultural framework [38]. This theory of social interaction proposes that individuals hold stable, culturally shared sentiments about identities and behaviors and that social interaction functions to maintain consistency between these fundamental sentiments and the transient impressions generated during an interaction [37,38]. When an event produces impressions that diverge substantially from an individual's fundamental sentiments, individuals are motivated to restore alignment, often by adjusting their behavior or reinterpreting the situation [37]. This multidimensional model has been applied across social psychological research, self-concept, and identity perception, underscoring the EPA framework's utility for capturing how affective meaning shapes social perception and behavior. Recent work has extended ACT directly into the mental health domain, where it has been found that when young adults invest in a positive, powerful, and active identity over time, their self-concepts improve alongside a reduction in depression, anxiety, and stress [39].

Young women are an important population to investigate the relationship between social comparison and mental well-being stemming from social media engagement. While social comparison is common across genders, there is evidence suggesting that young women experience stronger associations between social comparison and adverse psychological outcomes than men [40]. Compared to men, women have been found to spend extensive periods on social media, engage in more social comparison, and have more maladaptive cognitive emotion regulation strategies, which

results in lower mental well-being [41]. Women have also been found to consistently report higher levels of depression, anxiety, and stress than men [42-45], and mental distress is higher among young women than among similarly aged men [46].

Given the evidence suggesting that the effects of social comparison extend beyond appearance-specific self-evaluation and that the mental well-being of young women is disproportionately affected in response to these comparisons, this study aimed to examine and quantify the way in which young women view content posted by other young women and how this shapes their perceptions of themselves and their well-being. As a methodological proof of concept, we harnessed ACT as a modeling tool to investigate the way in which young women present and perceive themselves and other young women on Instagram and how this is related to their psychological well-being. We hypothesized the following:

1. Higher discrepancies between the ratings that participants gave themselves and their Instagram profiles would be associated with increased feelings of low self-esteem, depressive symptoms, and social anxiety symptoms.
2. Higher discrepancies between the ratings that participants gave themselves and the Instagram profiles of other participants would be associated with increased feelings of low self-esteem, depressive symptoms, and social anxiety symptoms.

Methods

Participants

Between October 2022 and March 2023, we recruited students between the ages of 19 and 24 years who identified as women from the University of British Columbia's (UBC) Department of Psychology's Human Subject Pool. Participants had to (1) be active Instagram users, which was defined as spending a minimum of 6 hours per week on the platform and making in-feed posts at least once every 2 weeks; and (2) have public Instagram profiles. We offered course credit as compensation to facilitate response rates within this population.

As this was a proof-of-concept study intended to obtain preliminary data, no formal a priori power calculation was conducted. Recruitment was based on a convenience sample of undergraduate psychology students, with the final sample size determined by participant availability and study resources.

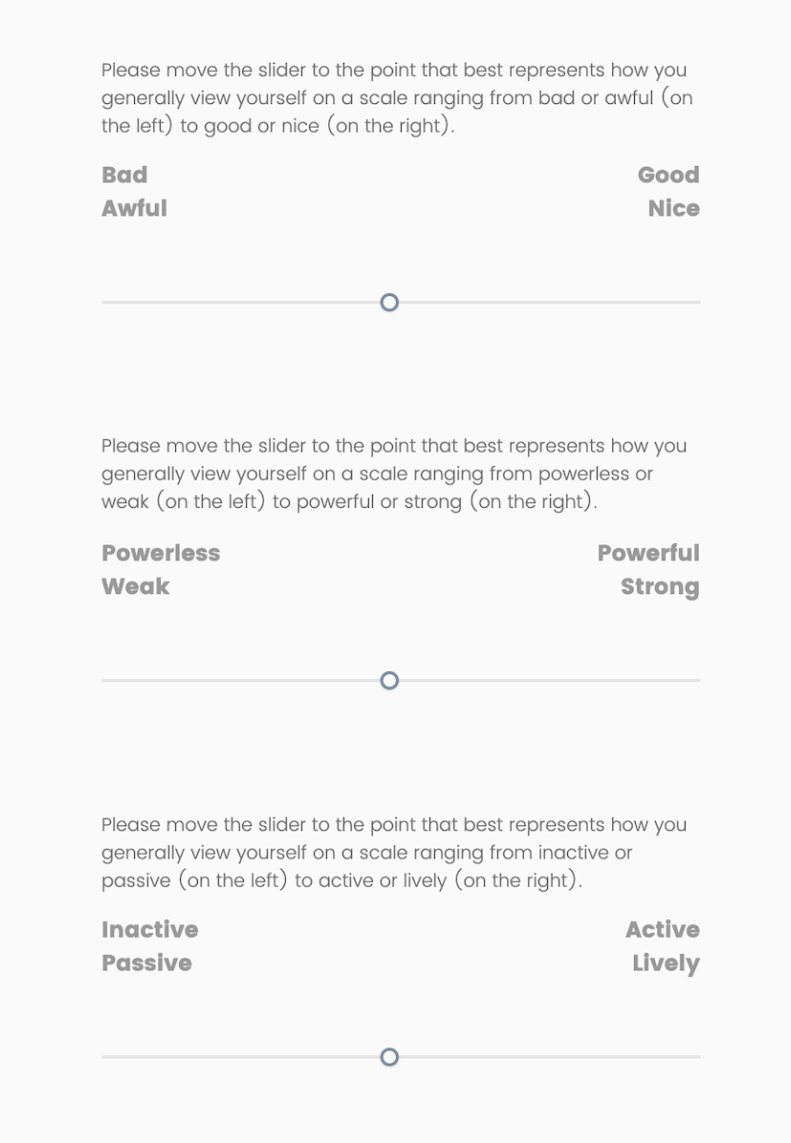
Procedure

Data collection took place in 2 parts. Participants first completed a survey online using Qualtrics (Qualtrics International Inc) hosted by UBC in which they provided informed consent and submitted the username of their personal Instagram profile. The consent page of this survey outlined to participants that their screen-captured Instagram profiles would be shared with other participants who had also consented to this process and they would be asked questions related to these profiles. They were also made aware that other participants could potentially infer and identify them as study participants. All participants were instructed not to disclose this information; however, they were also informed that their confidentiality could not be fully guaranteed.

The research team accessed each provided profile and took a screenshot for use in part 2. To generate a representative first impression of each Instagram profile, the research team captured the participants' biography description, number of posts, followers and people followed, and first 9 photos displayed on each participant's profile grid. These screen-captured profiles were embedded directly within the part 2 survey, allowing raters to view profile content without needing to click through to an external Instagram page. This approach was used to improve efficiency and reduce participant burden, as well as to ensure the stability of the content rated by different participants.

Screen-captured profiles collected in part 1 were compiled and uploaded to a second online Qualtrics survey hosted by UBC. Both the selection and presentation order of the 10 profiles were randomized for each participant using Qualtrics' built-in randomization functionality. Using the ACT-based EPA scale [37], participants were asked to complete a survey that included rating (1) how they saw themselves, (2) their Instagram profiles, and (3) a randomized set of 10 other participant profiles. Ratings were collected using a slider ranging from −10.00 to +10.00 (Figure 1). The resulting ratings were linearly transformed to the standard EPA scale ranging from −4.3 to +4.3. Following the ratings, participants were asked to provide a word to describe themselves, their Instagram profiles, and a random set of 10 other participant profiles. This word was coded to the EPA values using the cultural sentiment dictionary developed from data collected in Ontario, Canada, by MacKinnon [47] in 2001-2003, generating a dictionary-derived EPA value for each participant's self-selected word. Including this alongside participants' direct EPA scale ratings was consistent with standard practice in ACT, where cultural sentiment dictionaries are used to translate concept labels into normative EPA coordinates [47,48]. At the end of the survey, participants were asked to answer questions about their self-esteem and feelings of depression and anxiety using the Rosenberg Self-Esteem Scale (10 items rated on a 4-point scale ranging from "strongly disagree" to "strongly agree"), the Patient-Reported Outcomes Measurement Information System (PROMIS) Depression scale (Short Form 4a; 4 items rated on a 5-point scale ranging from "never" to "always"), and the Social Anxiety Scale for Social Media Users (SAS-SMU; 21 items rated on a 5-point Likert-type scale ranging from "never" to "always") developed by Alkis et al [49].

Figure 1. Example of scales used by participants to provide Evaluation, Potency, and Activity ratings.



Pilot-Testing

Prior to data collection, the randomization procedure was piloted multiple times by research team members to confirm that the Instagram profiles were assigned as intended and that the questions were clear. Participant profiles were not included or displayed during piloting.

Data Analysis

We used descriptive statistics to summarize our data and inferential statistics to evaluate our hypotheses. Each participant provided EPA ratings: one for themselves, one for their own Instagram profile, and multiple ratings for others' Instagram profiles. To assess perceived similarities and differences, we calculated the distance between these ratings. Distances were calculated separately for each of the 3 EPA dimensions as the rating assigned to the comparison target minus the rating assigned to the self so that a positive value indicated that the target was rated higher than the self on that dimension. For comparisons between each participant and their own Instagram profile, this was the rating of their profile minus their self-rating. For comparisons between a participant and other women, this was the rating of each other woman's profile minus the participant's self-rating. Because each participant rated between 9 (if their own profile was presented during the randomization) and 10 other profiles, the distances to other women were averaged before analysis, producing 1 value per participant for each dimension and preserving the independence of observations. Wilcoxon signed-rank tests were used for paired comparisons and are reported with the Hodges-Lehmann estimate and its 95% CI. The Spearman rank correlation was used to assess relationships between variables and is reported with bootstrap percentile 95% CIs based on 5000 resamples. The 12 paired comparisons, comprising 9 based on EPA ratings and 3 based on the words that participants chose, were treated as a single planned family and adjusted using the Holm procedure. The 18 correlations were designated as exploratory, with the false discovery rate controlled using the Benjamini-Hochberg procedure at a threshold of 0.05. A 3D Euclidean distance was also calculated for descriptive purposes only. Missing dimension scores were handled via pairwise deletion within

dimensions. Because the 3 EPA dimensions were analyzed separately, a rating missing 1 dimension still contributed to analyses of the other 2. The Euclidean distance required all 3 dimensions and was calculated only for complete ratings. Participants missing an entire measure were excluded from the corresponding analyses, and no values were imputed. Analyses were conducted in R (R Foundation for Statistical Computing) [50].

Ethical Considerations

This study was approved by the UBC Behavioural Research Ethics Board (H21-00024). Completion of part 1 (Instagram information collection) and part 2 (ratings and scales) surveys following review of the consent information on the cover page implied that participants read, understood, and agreed to take part in the study. Participant information collected in part 1 was deidentified, while participant information collected in the part 2 survey was anonymized. The 2 surveys were not linked, and therefore, we were unable to determine which participants completed both surveys. For part 1 participants whose data were deidentified, a document linking their identity to study data was encrypted and stored separately from the raw survey data. Participants were compensated with course credit upon completion of the surveys, which counted toward eligible bonus marks in their course grades.

Results

Overview

A total of 35 students who self-identified as women, including cisgender, transgender, and gender-diverse individuals, completed the survey on Qualtrics. One participant rated themselves and their own profile but did not rate any other participants' profiles and did not complete the well-being scales. This participant was excluded from all correlational analyses, yielding an analytic sample of 34. Of 401 valid EPA ratings, 6 (1.5%) were missing at least one dimension score, accounting for 0.7% (8/1203) of individual values. One further record contained no profile identifier and no scores and was removed during data cleaning. Participant age was not collected as part of this study. Given that recruitment took place through UBC's Human Subject Pool, the sample was drawn primarily from the university's undergraduate population, which falls within our study's inclusion criteria of being between the ages of 19 and 24 years.

EPA Ratings for the Self, Participants' Own Instagram Profiles, and Others' Profiles

All participants rated themselves, their representation based on their latest 9 Instagram posts, and the profiles of other participants using the EPA scale, which ranges from –4.3 to +4.3 on 3 axes: good-bad (Evaluation), powerful-weak (Potency), and active-inactive (Activity). Paired comparisons of EPA ratings are shown in Table 1 (complete statistical results are available in Multimedia Appendix 1). After Holm adjustment across the 12 planned comparisons, none of the 9 rating-based comparisons reached significance. Two showed effects of medium magnitude that did not survive adjustment. Participants rated themselves as more "good" than other women, with a Hodges-Lehmann estimate of –0.72 (95% CI –1.12 to –0.28). Participants also rated their own Instagram profiles as more active than themselves, with a Hodges-Lehmann estimate of 1.08 (95% CI 0.37 to 1.61). The remaining 7 rating-based comparisons showed small effects, all with unadjusted *P* values above .10. Given the sample size, these are reported as exploratory patterns rather than as established differences.

Table 1. Paired comparisons of Evaluation, Potency, and Activity ratings

Comparisons	Mean difference	Median difference	Rank biserial *r*	*P* value	Holm-adjusted *P* value
Evaluation					
Own IG[a] – self	–0.513	–0.36	–0.376	.06	.54
Others (mean) – self	–0.481	–0.825	–0.54	.006	.06
Others (mean) – own IG	0.04	–0.152	–0.156	.44	>.99
Potency					
Own IG – self	0.415	0.7	0.304	.12	.87
Others (mean) – self	0.151	0.248	0.059	.77	>.99
Others (mean) – own IG	–0.365	–0.309	–0.326	.10	.84
Activity					
Own IG – self	0.893	1.2	0.501	.01	.11
Others (mean) – self	0.491	0.581	0.227	.26	>.99
Others (mean) – own IG	–0.28	–0.722	–0.197	.33	>.99
Word					
Evaluation: own IG – self	0.703	0.27	0.341	.31	>.99
Potency: own IG – self	0.687	0.19	0.448	.15	.92
Activity: own IG – self	1.05	0.97	0.962	<.001	.004

[a]IG: Instagram.

EPA Distance Between the Words Participants Used to Describe Themselves and to Describe Their Own Instagram Profiles

To explore the concordance between ACT ratings and self-perceptions based on narratives, we asked participants to choose one word to describe themselves and one word to describe their Instagram profiles. The EPA ratings for these chosen words were then extracted from the cultural sentiment dictionary developed from data collected in Ontario, Canada, by MacKinnon [47] and compared with the EPA ratings contributed by participants. Example words (and corresponding EPA values) chosen by participants to describe themselves included "passionate" (Evaluation: 2.68, Potency: 2.2, and Activity: 1.72), "kind" (Evaluation: 2.76, Potency: 1.97, and Activity: 0.64), and "sympathetic" (Evaluation: 2.36, Potency: 1.42, and Activity: –0.91). Example words chosen to describe Instagram profiles included "happy" (3.04, 2.39, and 1.72), "outgoing" (2.04, 2.02, and 1.99), and "attractive" (2.16, 2.25, and 1.52). Of the words provided, 47 could be matched to the Ontario-derived dictionary [47], leaving 14 participants who supplied a matchable word for both themselves and their Instagram profile, and comparisons were restricted to these participants. Participants chose words describing their Instagram profiles that were significantly more active than the words describing themselves, with a Hodges-Lehmann estimate of 1.03 (95% CI 0.44-1.60). This was the only comparison of the 12 to survive Holm adjustment, and it also met a Bonferroni threshold. Differences on the Evaluation dimension (Hodges-Lehmann estimate=0.44, 95% CI –0.39 to 1.76; one participant excluded for a difference of exactly 0) and the Potency dimension (Hodges-Lehmann estimate=0.24, 95% CI –0.16 to 1.55) were not significant.

Relationships Between Self-Ratings and Mental Health

When examining correlations (Table 2) among the EPA distances of the participants' self-ratings, personal Instagram profile ratings, and mental health, we found that the relationship between the PROMIS depression scores and EPA scores was not statistically significant (ϱ between 0.082 and 0.261; $P>.25$). Depression was not correlated with how differently a participant viewed themselves and their Instagram profile. SAS-SMU scores showed moderate positive correlations with Potency and Activity. Participants who had greater differences between how they viewed themselves and their Instagram profiles in terms of power and activity were found to have high levels of social anxiety. Rosenberg Self-Esteem Scale scores showed moderate negative correlations with Potency and Activity. Participants who had greater differences between how they viewed themselves and their Instagram profiles in terms of power and activity were found to have lower self-esteem.

Table 2. Correlations between the Evaluation, Potency, and Activity (EPA) distances of the participants' self-ratings, personal Instagram (IG) profile ratings, and mental health.

Block, EPA domain, and scale	*df*	*P* value	*q* value	ϱ (95% CI)
Self vs own IG				
Evaluation				
PROMIS[a] T-score	32	.65	.7272	0.082 (–0.277 to 0.416)
SAS-SMU[b] total score	32	.20	.2751	0.226 (–0.140 to 0.541)
Rosenberg Self-Esteem Scale total score	32	.18	.2751	–0.235 (–0.549 to 0.131)
Potency				
PROMIS T-score	31	.14	.2561	0.261 (–0.105 to 0.545)
SAS-SMU total score	31	.007	.0326	0.459 (0.177 to 0.670)
Rosenberg Self-Esteem Scale total score	31	.01	.0337	–0.433 (–0.687 to –0.076)
Activity				
PROMIS T-score	32	.29	.3737	0.187 (–0.153 to 0.503)
SAS-SMU total score	32	.01	.0337	0.429 (0.117 to 0.655)
Rosenberg Self-Esteem Scale total score	32	.03	.0583	–0.382 (–0.671 to –0.031)
Self vs others (mean)				
Evaluation				
PROMIS T-score	32	.69	.7288	0.071 (–0.299 to 0.426)
SAS-SMU total score	32	.78	.7796	0.050 (–0.319 to 0.430)
Rosenberg Self-Esteem Scale total score	32	.20	.2751	–0.226 (–0.545 to 0.153)
Potency				
PROMIS T-score	32	.06	.1262	0.322 (–0.062 to 0.645)
SAS-SMU total score	32	.001	.0129	0.525 (0.239 to 0.741)
Rosenberg Self-Esteem Scale total score	32	<.001	<.001	–0.715 (–0.856 to –0.488)

Block, EPA domain, and scale	*df*	*P* value	*q* value	ϱ (95% CI)
Activity				
PROMIS T-score	32	.33	.3943	0.173 (–0.185 to 0.492)
SAS-SMU total score	32	.01	.0337	0.421 (0.073 to 0.678)
Rosenberg Self-Esteem Scale total score	32	.007	.0326	–0.456 (–0.692 to –0.153)

[a]PROMIS: Patient-Reported Outcomes Measurement Information System.
[b]SAS-SMU: Social Anxiety Scale for Social Media Users.

When considering EPA distances between the participants' self-ratings and their ratings of other women's Instagram profiles and participants' responses to mental health–related scales, we found that participants who viewed others as more powerful (eg, higher Potency scores) than themselves also reported higher social anxiety based on their responses to the SAS-SMU. Social anxiety was also related to Activity scores, although not as strongly as Potency scores. Finally, there were significant negative correlations between responses to the Rosenberg Self-Esteem Scale and Potency and Activity scores. As the distance between the self-ratings and the ratings of other Instagram profiles decreased for Potency and Activity scores, self-esteem scores increased. No association with depressive symptoms reached significance and no Evaluation distance was associated with any measure.

Discussion

Principal Findings

This study applied ACT, a sociopsychological theory of identity, to investigate the relationships between the way in which women see themselves, their own presentations, and those of other women on Instagram and how these perceptions relate to their well-being. Our clearest finding concerns activity. When participants chose a single word to describe their Instagram profile and a single word to describe themselves, the profile words were markedly more active, an effect large enough to survive adjustment across all 12 planned comparisons. The same pattern appeared in the direct EPA ratings, where participants rated their profiles as more active than themselves, although that comparison did not survive adjustment in this small sample. Two measurement approaches, one using direct ratings and one using freely chosen words translated through the dictionary by MacKinnon [47], therefore converge on the same conclusion. The data also showed that greater differences in self-ratings compared to ratings of personal Instagram profiles and other women's Instagram profiles in terms of power and activity were associated with higher social anxiety and lower self-esteem. This suggests that greater discrepancies between young women's online and offline selves, as well as increased self-comparisons to others online, may be associated with lower levels of well-being.

Comparison to Prior Work

The study's results align with previous findings of individuals having a tendency to curate and present an idealized version of themselves on social media regardless of whether it aligns with their actual self [51,52]. It has been found that social media users actively engage in altering their online impressions and self-presentations, with their motivations varying across individuals, where factors such as personality, self-objectification, and individual goals all influence how they choose to portray themselves [52-54]. In addition, studies have found that self-comparison led to decreased well-being and intrusive social media use in young women [55]. In a study by Lamp et al [56], individuals who manipulated their photos for Instagram felt that they were being disingenuous online, which was related to feelings of depression. These behaviors of altering one's online self-presentation and engaging in social comparisons can be viewed as interconnected. One's perception of others can shape how they view themselves, which can influence how an individual desires to be seen online, leading to disingenuous representations, and can lead to decreased well-being. If these aspects are not appropriately addressed, it can lead to a cyclic pattern that further reinforces these behaviors and emotional impacts.

Implications

While the effects of self-presentation and social comparison on social media have been widely studied, it remains especially important for young adult women undergoing critical stages of development and identity formation to develop skills that help them manage these impacts. Understanding how the specific features and applications of social media influence well-being is important to inform these development efforts. The present findings offer insights into the way in which women's alignment with their online presence and others' curated content can be linked to women's well-being. In particular, the degree to which women align with others online can play a critical role in shaping women's self-esteem. This raises the potential for tailored strategies that foster positive emotional alignment. There is evidence suggesting that high social media literacy as well as body-positive, diverse, and inclusive content can serve as a protective factor for women by enhancing body satisfaction and reducing negative mood [57-63]. Key individuals who play a role in supporting women's mental health can integrate this understanding to develop effective supports and resources that assist women in navigating the emotional challenges associated with social media use. With the additional focus on one's degree of alignment with their online selves and content presented by others, a more comprehensive approach can be implemented to manage the emotional responses experienced as a result.

Social media users frequently engage in constant self-presentation and curation of their identities online. Previous studies exploring the impact of social media on well-being have primarily focused on factors such as screen time and type of activity platform used alongside self-report scales on body satisfaction, appearance, and self-objectification [19,64-67]. The introduction of ACT provides a useful framework for understanding how users navigate their emotional responses when met with identities that align with or differ from their own. The use of this theory offers an alternate approach to understanding and quantifying how young women present, evaluate, and view themselves and socially engage with others online.

Limitations

While this study presents valuable insights and confirms the potential for ACT to serve as a modeling tool for online behaviors, we acknowledge important limitations. First, the sample size was relatively small, which limits statistical power and the generalizability of our findings. Second, our sample was drawn exclusively from women aged 19 to 24 years recruited through UBC's Human Subject Pool, which represents a narrow subset of Instagram users rather than the broader population of young women who use the platform. Findings from this sample may not generalize to women outside this age range, nonuniversity populations, or Instagram users in other contexts. The inclusion of cisgender, transgender, and gender-diverse participants who self-identified as women precludes any identity-based comparisons. Third, our recruitment procedure required participants to submit their Instagram profiles for capturing, which excluded individuals with private profiles as these could not be accessed by the research team. This may have introduced selection bias toward participants with more public-facing, and potentially more curated, online self-presentations, which could differ from those who keep their profiles private. Fourth, because this study used a cross-sectional design, we are unable to determine the direction or causality of the relationships observed between the factors investigated and young women's well-being, and further studies are needed, including longitudinal or other experimental designs, to establish causal effects. Finally, the sample was limited in its diversity, and future research should aim to recruit a more demographically diverse sample (eg, across ethnicities and socioeconomic statuses) to better capture how these processes may be impacted across different populations of women.

Conclusions

Overall, this research proposes a new approach to the study of social media use and contributes to the understanding of online self-presentation and the way in which self-comparisons influence the well-being of young women on one of the largest social media platforms worldwide. By comparing the differences in self-perception, personal Instagram profiles, and the Instagram profiles of other women, this study highlights the significant role that social media plays in influencing individuals' identities and related emotional experiences. In light of the limited scope of the present work, future research in this space could further examine the individual differences in how women navigate and respond to their online selves, including longitudinal approaches to uncover long-term effects. As one's online presence is increasingly linked to many aspects of their everyday lives, it is critical to raise awareness of and address the implications of manipulating online self-presentations.

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Generative AI Use

ChatGPT (GPT-5.6 Luna; OpenAI) was used to suggest language improvements within the manuscript. The authors reviewed the generated content and take full responsibility for the final paper.

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Data Availability

The datasets analyzed during this study are not publicly available due to confidentiality of the participants' information but are available from the corresponding author on reasonable request.

Authors' Contributions

Conceptualization: JMR (lead), MTT (equal)
Formal analysis: YS (lead), JAD (equal)
Investigation: MTT
Methodology: JMR (lead), MTT (equal)
Project administration: MTT
Supervision: JMR

Writing—original draft: MTT (lead), JMR (supporting)
Writing—review and editing: MTT (lead), JMR (supporting), YS (supporting), JAD (supporting)

Conflicts of Interest

None declared.

Multimedia Appendix 1

Complete statistical results for paired comparisons of Evaluation, Potency, and Activity ratings.
[PDF File (Adobe File), 79 KB-Multimedia Appendix 1]

References

1. Curry D. Instagram revenue and usage statistics (2026). Business of Apps. 2026. URL: https://www.businessofapps.com/data/instagram-statistics/ [Accessed 2026-07-28]
2. Newberry C. 30+ Instagram statistics marketers need to know in 2026. Hootsuite. Mar 17, 2026. URL: https://blog.hootsuite.com/instagram-statistics/ [Accessed 2026-07-28]
3. Alfasi Y. The grass is always greener on my friends' profiles: the effect of Facebook social comparison on state self-esteem and depression. Pers Individ Differ. Sep 1, 2019;147:111-117. [doi: 10.1016/j.paid.2019.04.032]
4. Fox J, Vendemia MA. Selective self-presentation and social comparison through photographs on social networking sites. Cyberpsychol Behav Soc Netw. Oct 2016;19(10):593-600. [doi: 10.1089/cyber.2016.0248] [Medline: 27732079]
5. Lup K, Trub L, Rosenthal L. Instagram #instasad?: exploring associations among Instagram use, depressive symptoms, negative social comparison, and strangers followed. Cyberpsychol Behav Soc Netw. May 2015;18(5):247-252. [doi: 10.1089/cyber.2014.0560] [Medline: 25965859]
6. Mackson SB, Brochu PM, Schneider BA. Instagram: friend or foe? The application's association with psychological well-being. New Media Soc. Apr 4, 2019;21(10):2160-2182. [doi: 10.1177/1461444819840021]
7. Nesi J, Prinstein MJ. Using social media for social comparison and feedback-seeking: gender and popularity moderate associations with depressive symptoms. J Abnorm Child Psychol. Nov 2015;43(8):1427-1438. [doi: 10.1007/s10802-015-0020-0] [Medline: 25899879]
8. Park SY, Baek YM. Two faces of social comparison on Facebook: the interplay between social comparison orientation, emotions, and psychological well-being. Comput Human Behav. Feb 2018;79:83-93. [doi: 10.1016/j.chb.2017.10.028]
9. Stapleton P, Luiz G, Chatwin H. Generation validation: the role of social comparison in use of Instagram among emerging adults. Cyberpsychol Behav Soc Netw. Mar 2017;20(3):142-149. [doi: 10.1089/cyber.2016.0444] [Medline: 28263682]
10. Jiang S, Ngien A. The effects of Instagram use, social comparison, and self-esteem on social anxiety: a survey study in Singapore. Soc Media Soc. May 6, 2020;6(2):205630512091248. [doi: 10.1177/2056305120912488]
11. Leary MR, Kowalski RM. Impression management: a literature review and two-component model. Psychol Bull. 1990;107(1):34-47. [doi: 10.1037/0033-2909.107.1.34]
12. Twomey C, O'Reilly G. Associations of self-presentation on Facebook with mental health and personality variables: a systematic review. Cyberpsychol Behav Soc Netw. Oct 2017;20(10):587-595. [doi: 10.1089/cyber.2017.0247] [Medline: 29039706]
13. Wright EJ, White KM, Obst PL. Facebook false self-presentation behaviors and negative mental health. Cyberpsychol Behav Soc Netw. Jan 2018;21(1):40-49. [doi: 10.1089/cyber.2016.0647] [Medline: 29053387]
14. Fan X, Deng N, Dong X, Lin Y, Wang J. Do others' self-presentation on social media influence individual's subjective well-being? A moderated mediation model. Telemat Inform. Aug 2019;41:86-102. [doi: 10.1016/j.tele.2019.04.001]
15. Tiggemann M, Hayden S, Brown Z, Veldhuis J. The effect of Instagram "likes" on women's social comparison and body dissatisfaction. Body Image. Sep 2018;26:90-97. [doi: 10.1016/j.bodyim.2018.07.002] [Medline: 30036748]
16. Dohnt H, Tiggemann M. The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: a prospective study. Dev Psychol. Sep 2006;42(5):929-936. [doi: 10.1037/0012-1649.42.5.929] [Medline: 16953697]
17. Dohnt HK, Tiggemann M. Promoting positive body image in young girls: an evaluation of 'Shapesville'. Eur Eat Disord Rev. May 2008;16(3):222-233. [doi: 10.1002/erv.814] [Medline: 17680591]
18. Tiggemann M, Anderberg I. Social media is not real: the effect of 'Instagram vs reality' images on women's social comparison and body image. New Media Soc. 2020;22(12):2183-2199. [doi: 10.1177/1461444819888720]
19. Engeln R, Loach R, Imundo MN, Zola A. Compared to Facebook, Instagram use causes more appearance comparison and lower body satisfaction in college women. Body Image. Sep 2020;34:38-45. [doi: 10.1016/j.bodyim.2020.04.007] [Medline: 32505866]

20. Halliwell E, Dittmar H. The role of self-improvement and self-evaluation motives in social comparisons with idealised female bodies in the media. Body Image. Sep 2005;2(3):249-261. [doi: 10.1016/j.bodyim.2005.05.001] [Medline: 18089192]
21. Phillips L. Fitting in and feeling good: patterns of self-evaluation and psychological stress among biracial adolescent girls. In: Gillem AR, Thompson CA, editors. Biracial Women in Therapy: Between the Rock of Gender and the Hard Place of Race. 1st ed. The Haworth Press; 2004:217-236. URL: https://books.google.co.ug/books?id=TfqqKBz331cC&printsec=frontcover#v=onepage&q&f=false [Accessed 2026-10-27] ISBN: 9781315785752
22. van den Berg P, Paxton SJ, Keery H, Wall M, Guo J, Neumark-Sztainer D. Body dissatisfaction and body comparison with media images in males and females. Body Image. Sep 2007;4(3):257-268. [doi: 10.1016/j.bodyim.2007.04.003] [Medline: 18089272]
23. Lowery SE, Kurpius SE, Befort C, et al. Body image, self-esteem, and health-related behaviors among male and female first-year college students. J Coll Stud Dev. Nov 2005;46(6):612-623. [doi: 10.1353/csd.2005.0062]
24. Tiggemann M, Zaccardo M. "Exercise to be fit, not skinny": the effect of fitspiration imagery on women's body image. Body Image. Sep 2015;15:61-67. [doi: 10.1016/j.bodyim.2015.06.003] [Medline: 26176993]
25. Harper B, Tiggemann M. The effect of thin ideal media images on women's self-objectification, mood, and body image. Sex Roles. May 2008;58(9):649-657. [doi: 10.1007/s11199-007-9379-x]
26. Tiggemann M, Slater A. NetTweens: the internet and body image concerns in preteenage girls. J Early Adolesc. 2014;34(5):606-620. [doi: 10.1177/0272431613501083]
27. Tiggemann M, Slater A. NetGirls: the internet, Facebook, and body image concern in adolescent girls. Int J Eat Disord. Sep 2013;46(6):630-633. [doi: 10.1002/eat.22141] [Medline: 23712456]
28. Fardouly J, Vartanian LR. Negative comparisons about one's appearance mediate the relationship between Facebook usage and body image concerns. Body Image. Jan 2015;12:82-88. [doi: 10.1016/j.bodyim.2014.10.004] [Medline: 25462886]
29. Fardouly J, Diedrichs PC, Vartanian LR, Halliwell E. The mediating role of appearance comparisons in the relationship between media usage and self-objectification in young women. Psychol Women Q. Apr 17, 2015;39(4):447-457. [doi: 10.1177/0361684315581841]
30. Fardouly J, Diedrichs PC, Vartanian LR, Halliwell E. Social comparisons on social media: the impact of Facebook on young women's body image concerns and mood. Body Image. Mar 2015;13:38-45. [doi: 10.1016/j.bodyim.2014.12.002] [Medline: 25615425]
31. McComb CA, Vanman EJ, Tobin SJ. A meta-analysis of the effects of social media exposure to upward comparison targets on self-evaluations and emotions. Media Psychol. Feb 3, 2023;26(5):612-635. [doi: 10.1080/15213269.2023.2180647]
32. Guo S, Lei J, Zhang F. How social media social comparison influences Chinese adolescents' flourishing: the mediation effects of identity processing styles. Child Fam Soc Work. Nov 2025;30(4):950-959. [doi: 10.1111/cfs.13232]
33. Le Blanc-Brillon J, Fortin JS, Lafrance L, Hétu S. The associations between social comparison on social media and young adults' mental health. Front Psychol. Aug 8, 2025;16:1597241. [doi: 10.3389/fpsyg.2025.1597241] [Medline: 40861344]
34. Aubry R, Quiamzade A, Meier LL. Depressive symptoms and upward social comparisons during Instagram use: a vicious circle. Pers Individ Dif. Feb 2024;217:112458. [doi: 10.1016/j.paid.2023.112458]
35. Chen Z, Wu Y, Ma H, Niu G, Wang W. The effect of social networking site use on depression in graduate students: the mediating role of negative social comparison and moderating role of implicit personality theories. Behav Sci (Basel). May 15, 2023;13(5):412. [doi: 10.3390/bs13050412] [Medline: 37232649]
36. Ruan QN, Shen GH, Yang JS, Yan WJ. The interplay of self-acceptance, social comparison and attributional style in adolescent mental health: cross-sectional study. BJPsych Open. Oct 27, 2023;9(6):e202. [doi: 10.1192/bjo.2023.594] [Medline: 37886819]
37. Heise DR. Social action as the control of affect. Behav Sci. 1977;22(3):163-177. [doi: 10.1002/bs.3830220303]
38. Osgood CE, William M, Miron MS. Cross-Cultural Universals of Affective Meaning. University of Illinois Press; 1975. ISBN: 9780252004261
39. Rogers KB, Bouche N, Chung J, Huang E, Kalish A. Identity investment as a pathway for modifying self-sentiments and well-being. Soc Sci. May 11, 2026;15(5):310. [doi: 10.3390/socsci15050310]
40. Myers TA, Crowther JH. Social comparison as a predictor of body dissatisfaction: a meta-analytic review. J Abnorm Psychol. Nov 2009;118(4):683-698. [doi: 10.1037/a0016763] [Medline: 19899839]
41. Castillo-Gualda R, Rathje S, Ramos-Cejudo J. Social comparison and maladaptive emotion regulation are associated with poorer mental health in social media users. Sci Rep. Feb 17, 2026;16(1):9479. [doi: 10.1038/s41598-026-40371-3] [Medline: 41703007]

42. Bernal Arenas M, Arroyo-Sánchez A, Torres Parejo Ú, Muñoz-Negro JE. A systematic review and meta-analysis on gender differences in the treatment of anxiety and depression. Int J Soc Psychiatry. Aug 2025;71(5):835-843. [doi: 10.1177/00207640251331898] [Medline: 40346833]
43. Yeretzian ST, Sahakyan Y, Kozloff N, Abrahamyan L. Sex differences in the prevalence and factors associated with anxiety disorders in Canada: a population-based study. J Psychiatr Res. Aug 2023;164:125-132. [doi: 10.1016/j.jpsychires.2023.06.018] [Medline: 37352808]
44. Caballo VE, Salazar IC, Irurtia MJ, Arias B, Hofmann SG, CISO-A Research Team. Differences in social anxiety between men and women across 18 countries. Pers Individ Dif. Jul 1, 2014;64:35-40. [doi: 10.1016/j.paid.2014.02.013] [Medline: 24976665]
45. McLean CP, Anderson ER. Brave men and timid women? A review of the gender differences in fear and anxiety. Clin Psychol Rev. Aug 2009;29(6):496-505. [doi: 10.1016/j.cpr.2009.05.003] [Medline: 19541399]
46. Johansen R, Espetvedt MN, Lyshol H, Clench-Aas J, Myklestad I. Mental distress among young adults - gender differences in the role of social support. BMC Public Health. Nov 24, 2021;21(1):2152. [doi: 10.1186/s12889-021-12109-5] [Medline: 34819040]
47. MacKinnon NJ. Affective ratings of 2,294 concepts by Guelph University undergraduates, Ontario, Canada, in 2001–3. 2006. Affect Control Theory. 2006. URL: https://affectcontroltheory.org/resources-for-researchers/tools-and-software/interact/ [Accessed 2026-11-12]
48. Heise DR. Affect control theory: concepts and model. In: Smith-Lovin L, Heise DR, editors. Analyzing Social Interaction: Advances in Affect Control Theory. 1st ed. Routledge; 1988. ISBN: 9781315025773
49. Alkis Y, Kadirhan Z, Sat M. Development and validation of social anxiety scale for social media users. Comput Human Behav. Jul 2017;72:296-303. [doi: 10.1016/j.chb.2017.03.011]
50. R Core Team. R: a language and environment for statistical computing. R Foundation for Statistical Computing. 2024. URL: https://www.r-project.org/ [Accessed 2025-05-14]
51. Kross E, Verduyn P, Demiralp E, et al. Facebook use predicts declines in subjective well-being in young adults. PLoS One. Aug 14, 2013;8(8):e69841. [doi: 10.1371/journal.pone.0069841] [Medline: 23967061]
52. Harris E, Bardey AC. Do Instagram profiles accurately portray personality? An investigation into idealized online self-presentation. Front Psychol. Apr 24, 2019;10:871. [doi: 10.3389/fpsyg.2019.00871] [Medline: 31068863]
53. Chae J. Virtual makeover: selfie-taking and social media use increase selfie-editing frequency through social comparison. Comput Human Behav. Jan 2017;66:370-376. [doi: 10.1016/j.chb.2016.10.007]
54. Chen S, van Tilburg WA, Leman PJ. Women's self-objectification and strategic self-presentation on social media. Psychol Women Q. 2023;47(2):266-282. [doi: 10.1177/03616843221143751]
55. Milson R, Madigan DJ. Picture perfect: perfectionistic self-presentation, Instagram intrusion, and body satisfaction in young women. J Media Psychol. 2025;37(4):191-204. [doi: 10.1027/1864-1105/a000434]
56. Lamp SJ, Cugle A, Silverman AL, Thomas MT, Liss M, Erchull MJ. Picture perfect: the relationship between selfie behaviors, self-objectification, and depressive symptoms. Sex Roles. Dec 2019;81(11-12):704-712. [doi: 10.1007/s11199-019-01025-z]
57. Albert SL, Massar RE, Cassidy O, et al. Body positivity, physical health, and emotional well-being discourse on social media: content analysis of Lizzo's Instagram. JMIR Form Res. Nov 4, 2024;8(1):e60541. [doi: 10.2196/60541] [Medline: 39496156]
58. Jiménez-García AM, Arias N, Hontanaya EP, Sanz A, García-Velasco O. Impact of body-positive social media content on body image perception. J Eat Disord. Jul 25, 2025;13(1):153. [doi: 10.1186/s40337-025-01286-y] [Medline: 40713881]
59. Stein JP, Scheufen S, Appel M. Recognizing the beauty in diversity: exposure to body-positive content on social media broadens women's concept of ideal body weight. J Exp Psychol Gen. Nov 2024;153(11):2642-2656. [doi: 10.1037/xge0001397] [Medline: 37166839]
60. Rutter H, Campoverde C, Hoang T, Goldberg SF, Berenson KR. Self-compassion and women's experience of social media content portraying body positivity and appearance ideals. Psychol Pop Media. 2024;13(1):12-22. [doi: 10.1037/ppm0000453]
61. Tamplin NC, McLean SA, Paxton SJ. Social media literacy protects against the negative impact of exposure to appearance ideal social media images in young adult women but not men. Body Image. Sep 2018;26:29-37. [doi: 10.1016/j.bodyim.2018.05.003] [Medline: 29807299]
62. Cowles E, Guest E, Slater A. Imagery versus captions: the effect of body positive Instagram content on young women's mood and body image. Body Image. Mar 2023;44:120-130. [doi: 10.1016/j.bodyim.2022.12.004] [Medline: 36563473]

63. Stevens A, Griffiths S. Body positivity (#BoPo) in everyday life: an ecological momentary assessment study showing potential benefits to individuals' body image and emotional wellbeing. Body Image. Dec 2020;35:181-191. [doi: 10.1016/j.bodyim.2020.09.003] [Medline: 33068893]
64. Barthorpe A, Winstone L, Mars B, Moran P. Is social media screen time really associated with poor adolescent mental health? A time use diary study. J Affect Disord. Sep 1, 2020;274:864-870. [doi: 10.1016/j.jad.2020.05.106] [Medline: 32664027]
65. Hanna E, Ward LM, Seabrook RC, et al. Contributions of social comparison and self-objectification in mediating associations between Facebook use and emergent adults' psychological well-being. Cyberpsychol Behav Soc Netw. Mar 2017;20(3):172-179. [doi: 10.1089/cyber.2016.0247] [Medline: 28263683]
66. Portingale J, Girardin S, Liu S, Fuller-Tyszkiewicz M, Krug I. Daily bi-directional effects of women's social media-based appearance comparisons, body satisfaction, and disordered eating urges. J Eat Disord. Sep 3, 2024;12(1):129. [doi: 10.1186/s40337-024-01096-8] [Medline: 39227958]
67. Twenge JM, Farley E. Not all screen time is created equal: associations with mental health vary by activity and gender. Soc Psychiatry Psychiatr Epidemiol. Feb 2021;56(2):207-217. [doi: 10.1007/s00127-020-01906-9] [Medline: 32743778]

Abbreviations

ACT: Affect Control Theory
EPA: Evaluation, Potency, and Activity
PROMIS: Patient-Reported Outcomes Measurement Information System
SAS-SMU: Social Anxiety Scale for Social Media Users
UBC: University of British Columbia

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