



The Mediating Role of Body Image Flexibility in the Relationship Between Perfectionism and Self-Compassion With Instagram Selfie-Editing

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ABSTRACT

Objective: This study aimed to examine the mediating role of body image flexibility in the relationship between perfectionism and self-compassion with selfie-editing behavior on Instagram among university students.

Methods and Materials: Using a cross-sectional and correlational research design, a sample of 300 university students (aged 18–29) from the University of Tehran was selected through convenience sampling. Participants completed the Tehran Multidimensional Perfectionism Scale (TMPS), the Self-Compassion Scale–Long Form (SCS-LF), the Body Image–Acceptance and Action Questionnaire (BI-AAQ), and a researcher-developed Selfie-Editing Questionnaire (SEQ). Data were analyzed using SPSS-25 and AMOS-24 through structural equation modeling (SEM) and confirmatory factor analysis (CFA).

Findings: Results indicated that perfectionism and self-compassion did not have direct effects on selfie-editing behavior. However, both exhibited significant indirect effects via body image flexibility. Specifically, perfectionism showed a positive and significant indirect relationship with selfie-editing through lower body image flexibility, while self-compassion demonstrated a negative and significant indirect effect through higher body image flexibility. The model explained 42% of the variance in both body image flexibility and selfie-editing behavior. Age showed a significant negative association with both body image flexibility and editing behavior. Gender was not a significant predictor and was excluded from the final model.

Conclusion: The findings underscore the critical role of body image flexibility as a psychological mechanism linking perfectionism and self-compassion to selfie-editing behavior. These results suggest that fostering body image flexibility may reduce compulsive editing tendencies, especially in younger individuals navigating social media environments.

Keywords: selfie-editing, perfectionism, self-compassion, body image flexibility, self-presentation

1. Introduction

In the digital age, the advent of smartphones and social media has reshaped how individuals construct, present, and perceive themselves. Among the most pervasive trends is the culture of selfies—self-portraits often edited and curated for public consumption on platforms like Instagram. This behavior, though seemingly superficial, is embedded in a complex web of psychological constructs, particularly among emerging adults. Research has consistently shown that social media, especially Instagram, is a fertile ground for visual self-presentation and self-comparison, which can amplify concerns related to body image, self-worth, and perfectionism (Cary et al., 2024; Vandenbosch et al., 2022). The proliferation of filters, photo-editing apps, and appearance-based feedback loops has only intensified these psychological dynamics (Ozimek et al., 2023; Xiao et al., 2023). Accordingly, understanding the psychological underpinnings of selfie-editing behavior is essential, particularly in light of the growing mental health concerns associated with online appearance management.

Selfie-editing represents more than mere aesthetic adjustment; it often reflects deeper intrapersonal challenges such as perfectionism and body dissatisfaction (Cruz, 2019; Duffy, 2019). Perfectionism—especially in its maladaptive forms—is characterized by rigid standards and a chronic sense of inadequacy, both of which may be projected into digital self-representations (Limburg et al., 2017). Individuals high in perfectionism are likely to engage in image control and repeated editing to meet their internalized ideals of flawlessness (Sahin, 2021; Wang et al., 2019). This tendency has been particularly evident among young people navigating identity formation in hyper-visual social environments (Gioia et al., 2023). Such individuals may not only edit their selfies more frequently but may also derive emotional regulation or social validation from these behaviors, reinforcing a cycle of self-objectification (Ozimek et al., 2023).

In contrast to perfectionism, self-compassion offers a healthier internal narrative. Defined as treating oneself with kindness during times of perceived inadequacy or failure, self-compassion is linked to greater emotional resilience, lower self-criticism, and better body image outcomes (Messer et al., 2023; Steindl et al., 2020). Self-compassion involves three core components: self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification (Sahin, 2021). Research indicates that individuals with high self-

compassion are less likely to engage in maladaptive perfectionistic behaviors and more likely to accept their physical appearance without extensive modification (Messer et al., 2023; Perey & Koenigstorfer, 2020). These individuals are less susceptible to the negative psychological consequences of idealized imagery prevalent on platforms like Instagram (Wang et al., 2022). Despite this, the exact mechanisms through which self-compassion influences visual self-presentation behavior remain underexplored, particularly in the context of digital environments.

A promising explanatory construct that bridges perfectionism, self-compassion, and selfie-editing behavior is body image flexibility. Defined as the capacity to experience and accept negative thoughts and feelings about one's body without engaging in avoidance or control behaviors, body image flexibility allows individuals to maintain adaptive functioning even when body-related distress arises (Linardon et al., 2021; Rogers et al., 2018). This psychological flexibility is considered a protective factor that buffers against the internalization of unrealistic beauty standards and reduces the compulsion to manipulate one's appearance in digital photos (Brichacek et al., 2024). Individuals with high body image flexibility are more likely to disengage from appearance-driven validation and are less influenced by peer comparison or algorithm-driven visibility norms (Dixon, 2024; Pettersson, 2017). In contrast, low body image flexibility often coexists with heightened perfectionism and low self-compassion, fueling compulsive selfie-editing behaviors aimed at achieving unrealistic aesthetic ideals (Gioia et al., 2023; Xiao et al., 2023).

The interplay between these constructs can be better understood through the lens of body-related affect regulation. According to contemporary models, individuals who struggle with emotional self-regulation related to their body image often resort to behaviors such as photo-editing as a maladaptive coping strategy (Brichacek et al., 2024). Perfectionism, in this framework, acts as a cognitive vulnerability that exacerbates negative self-evaluation, whereas self-compassion offers a regulatory counterforce. Body image flexibility functions as the mediator that determines whether these traits translate into dysfunctional editing behaviors or are mitigated through acceptance and non-avoidance (Linardon et al., 2021; Messer et al., 2023). In this regard, the digital manipulation of selfies can be conceptualized not merely as an aesthetic activity but as a reflection of the individual's psychological resources and vulnerabilities (Cary et al., 2024; Ozimek et al., 2023).

Furthermore, cultural and technological factors may shape the intensity and implications of these psychological dynamics. In regions like Iran, where internet penetration and social media usage are increasingly prevalent—78.5% of the population reportedly uses social networks (Ispa, 2022)—Instagram has become a dominant space for youth self-expression. The platform's emphasis on visuality and curated personas amplifies the relevance of perfectionism and body dissatisfaction as predictors of selfie behavior (Woolf, 2025). Moreover, the broader sociocultural milieu, including patriarchal beauty norms and collective identity tensions, may reinforce the drive toward edited self-presentation, especially among young women (Meriluoto, 2023; Saadatbin Javaheri et al., 2021). These socio-technical pressures are exacerbated by algorithmic feedback loops that reward conventionally attractive imagery with likes and visibility, thus incentivizing continuous aesthetic modification (Pettersson, 2017; Vandenbosch et al., 2022).

Within this landscape, empirical efforts to model the psychological predictors of selfie-editing are gaining urgency. While cross-sectional studies have identified correlations among self-compassion, perfectionism, and appearance-related behaviors, few studies have explored the mediational role of body image flexibility in structural models (Messer et al., 2023; Perey & Koenigstorfer, 2020). Even fewer have used confirmatory factor analysis and structural equation modeling to test such models with cultural contextualization and digital behavior-specific measures (Collier, 2020; Taber, 2018). This gap is particularly significant considering that digital photo-editing behaviors often elude conventional psychological assessment due to their normalization and social desirability (Duffy, 2019; Gioia et al., 2023). Therefore, there is a need for robust psychometric tools and culturally sensitive models that can capture the nuances of digital embodiment and self-modification.

Against this backdrop, the current study aims to examine the mediating role of body image flexibility in the relationship between perfectionism and self-compassion with selfie-editing behavior on Instagram.

2. Methods and Materials

2.1. Study Design and Participants

The present study was a cross-sectional and applied investigation conducted within a statistical population of approximately 52,000 students at the University of Tehran, using a convenience sampling method. Given that the

hypothesized model included 10 primary observed variables, a maximum of 55 parameters were estimated. According to the criterion by Kline (2016), a minimum of 5 participants per parameter (a total of 275) was required. With an additional 5% anticipated attrition rate, the final sample size was determined to be 289 participants. The initial sample included 313 individuals; however, 13 participants were excluded due to non-compliance with the inclusion criteria, resulting in a final sample of 300 individuals. This sample size was deemed highly adequate based on Kline's (2016) recommendation.

Inclusion criteria were as follows: (1) current enrollment at the University of Tehran, (2) age between 18 and 29 years, and (3) being an active Instagram user. Exclusion criteria included: (1) students who had dropped out and (2) students with no sustained interest in virtual social networks. The research questionnaires were distributed online through student-related online groups affiliated with the University of Tehran, and responses were collected electronically.

2.2. Measures

2.2.1. Tehran Multidimensional Perfectionism Scale (TMPS)

The TMPS was developed by Basharat (2011), based on the multidimensional perfectionism scales of Hewitt and Flett (1991) and Frost et al. (1990), and was standardized on a sample of 500 students aged 18–29 from the University of Tehran. This instrument consists of 30 items across three subscales: self-oriented, other-oriented, and socially prescribed perfectionism, with 10 items allocated to each subscale. Responses are rated on a 5-point Likert scale. Cronbach's alpha reliability for the subscales has been reported as 0.90, 0.91, and 0.81, respectively. Concurrent, convergent, and divergent validity have all been confirmed. In the current study, the Cronbach's alpha values for the three subscales were 0.74, 0.72, and 0.75, indicating satisfactory reliability.

2.2.2. Self-Compassion Scale – Long Form (SCS-LF)

This scale was developed by Neff (2003b) and consists of 26 items measuring self-compassion across six subscales: self-kindness, common humanity, mindfulness, self-judgment, isolation, and over-identification. The scale uses a 5-point Likert format, with the latter three subscales reverse-coded and combined with the former three. Neff reported a Cronbach's alpha of 0.92 and test-retest reliability

of 0.93, alongside strong convergent and discriminant validity. The scale was standardized in Iran by Momeni, Shahidi, Motabi, and Heydari (2013), with a Cronbach's alpha of 0.70 and test-retest reliability of 0.89, both indicating solid psychometric properties. In the present study, the three-factor version was used, consisting of self-kindness, common humanity, and mindfulness subscales, with Cronbach's alpha values of 0.73, 0.70, and 0.71, respectively, indicating good reliability.

2.2.3. *Body Image–Acceptance and Action Questionnaire (BI-AAQ)*

Developed by Sandoz et al. (2013), this questionnaire measures body image flexibility. It comprises 12 items rated on a 7-point Likert scale, with higher scores indicating greater body image flexibility. The original version showed excellent reliability (Cronbach's alpha = 0.93) and strong validity. The instrument was later standardized in Iran by Izadi, Karimi, and Rahmani (2013), reporting a Cronbach's alpha of 0.87, test-retest reliability of 0.72, and high convergent validity, confirming its suitability for the Iranian context. In the current study, the Cronbach's alpha was 0.93, indicating strong internal consistency and appropriateness for assessing body image flexibility among the sample population.

2.2.4. *Researcher - Developed Selfie-Editing Questionnaire (SEQ)*

This instrument was developed by the researchers to assess the frequency and manner of Instagram selfie-editing over the past 30 days. It evaluates four distinct dimensions: number of edited photos, facial editing, body editing, and general photo effects editing. Specific items assess the extent of facial edits (e.g., use of makeup, blemish removal, enhancement of facial features), body edits (e.g., changing

the size or shape of body parts), and changes in overall photo effects (e.g., lighting adjustments or color filters such as black-and-white or blur). Responses are given on a 5-point Likert scale ranging from “very little” (1) to “very much” (5), enabling quantitative analysis of selfie-editing behavior. In this study, the questionnaire demonstrated good reliability with a Cronbach's alpha of 0.81. Additionally, content validity was confirmed by expert review, ensuring the instrument's appropriateness for measuring the intended constructs.

2.3. *Data Analysis*

For data analysis, descriptive statistics including frequency, median, mean, standard deviation, correlation coefficient, skewness, and kurtosis were used alongside inferential statistics, namely structural equation modeling (SEM) based on covariance analysis. Before analysis, assumptions related to maximum likelihood estimation—such as univariate and multivariate normality, absence of multicollinearity, and missing data—were examined. After conducting confirmatory factor analysis and assessing model fit, statistical analyses were performed using SPSS-25 and AMOS-24 at a significance level of 0.05. It is noteworthy that no missing data were observed during the collection process, and age and gender variables were controlled using software tools. Prior to participation, all respondents were informed of the study's objectives, the voluntary nature of participation, and their right to withdraw. Informed consent was obtained from each participant.

3. Findings and Results

Table 1 presents the demographic information of the 300 participants examined in this study, reflecting a diverse academic population among university students.

Table 1

Demographic Information

Variable	Value	Frequency	Percentage
Gender:	1. Male	139	46.3%
	2. Female	161	53.7%
Education Level:	1. Bachelor's	226	75.3%
	2. Master's	52	17.3%
	3. Ph.D.	22	7.4%
Marital Status:	1. Single	286	95.3%
	2. Married	14	4.7%
Total		300	100%

Table 2 presents descriptive statistics for the study variables among participants. One of the primary

assumptions of structural equation modeling is the normal distribution of the study variables.

Table 2

Descriptive Statistics of Variables

Variable	Mean	Median	SD	Skewness	Kurtosis
Self-oriented Perfectionism	26.35	26.00	5.869	-0.087	-0.365
Other-oriented Perfectionism	26.01	26.00	5.440	-0.053	-0.272
Socially-prescribed Perfectionism	26.73	26.00	5.985	0.135	-0.328
Self-kindness	3.05	3.10	0.601	-0.158	-0.612
Common Humanity	3.09	3.125	0.527	-0.175	-0.064
Mindfulness	3.11	3.08	0.629	0.175	-0.336
Body Image Flexibility	72.08	73.00	9.104	-0.692	0.237
Number of Edits	1.93	2.00	0.972	0.870	0.058
Face Editing	1.96	2.00	1.103	0.844	-0.397
Body Editing	1.62	1.00	0.848	1.083	-0.005
General Effects Editing	1.97	1.00	1.185	0.923	-0.325
Age	21.13	20.00	2.565	1.116	0.546
Gender	0.54	1.00	0.499	-0.147	-1.978

As seen in the above table, skewness values for all variables fall between -2 and +2, and kurtosis values range

from -7 to +7, which confirms the univariate normality of the variables.

Table 3

Correlation Matrix Among Variables

Var	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1												
2	0.643	1											
3	0.596	0.544	1										
4	-0.495	-0.374	-0.424	1									
5	-0.432	-0.352	-0.430	0.657	1								
6	-0.448	-0.386	-0.396	0.620	0.575	1							
7	-0.452	-0.381	-0.460	0.490	0.456	0.518	1						
8	0.226	0.223	0.233	-0.174	-0.256	-0.284	-0.521	1					
9	0.257	0.210	0.224	-0.257	-0.265	-0.540	-0.709	0.341	1				
10	0.134	0.114	0.075	-0.119	-0.204	-0.193	-0.308	0.404	0.341	1			
11	0.277	0.254	0.295	-0.262	-0.274	-0.294	-0.532	0.704	0.657	0.344	1		
12	0.018	0.019	0.028	0.014	0.059	0.083	0.083	-0.149	-0.112	-0.175	-0.170	1	
13	0.103	0.062	0.073	-0.063	-0.067	-0.084	-0.045	-0.050	0.015	0.061	0.081	-0.074	1

The correlation matrix presented in Table 3 reveals significant relationships among various psychological traits and selfie-editing behaviors. Notably, gender showed very weak correlations with other variables, indicating a minimal influence of some demographic factors on the psychological and behavioral constructs under investigation. This aligns with the findings of Wang et al. (2022), suggesting that psychological constructs and editing behaviors transcend gender differences among participants. Additionally, the control variable of age had significant negative correlations with the number of selfie edits, body editing, and general

effects editing, indicating that younger individuals are more likely to engage in extensive selfie-editing.

Overall, the significant correlations highlight the intertwined nature of psychological traits and emphasize the crucial roles of perfectionism, self-compassion, and body image flexibility in influencing social media behaviors such as selfie-editing. It is noteworthy that gender, as a control variable, was excluded from the model due to its lack of significant relationships with other variables, in accordance with Collier (2020), and only age was statistically controlled.

Given the multivariate kurtosis value of 11.611 and the critical ratio of 7.146 in this model, and to assess mediational

relationships, the bootstrap method was applied with 5,000 samples and a 95% confidence interval. The variance inflation factor (VIF) between perfectionism and self-compassion was 1.004, and the tolerance value was 0.996. Since VIF was below 5 and tolerance was above 0.20, there was no multicollinearity among exogenous variables.

Confirmatory factor analysis was performed for the latent variables of selfie-editing (with four subscales: number of edits, facial editing, body editing, and general effects editing), self-compassion (with three subscales: self-kindness, common humanity, and mindfulness), and

perfectionism (with three subscales: self-oriented, other-oriented, and socially prescribed).

Good model fit indices are characterized by the following: chi-square divided by degrees of freedom (CMIN/DF) less than 3, comparative fit index (CFI) greater than 0.90, normed fit index (NFI) greater than 0.90, root mean square error of approximation (RMSEA) below 0.08, goodness-of-fit index (GFI) greater than 0.90, adjusted goodness-of-fit index (AGFI) greater than 0.80, and a non-significant Bollen–Stine bootstrap p-value ($p > 0.05$). The model fit indices for the current study were highly satisfactory as follows:

Table 4

Model Fit Indices for the Confirmatory Factor Analysis Model

χ^2	df	CMIN/DF	CFI	NFI	RMSEA	GFI	AGFI	Bollen–Stine
25.954	24	1.081	0.998	0.980	0.017	0.981	0.964	0.446

The standardized path coefficients and their standard errors are presented in Table 5. Due to the low factor loading for body editing (0.44), which indicated inadequate validity,

this item was removed from the model. The remaining factor loadings, ranging from 0.723 to 0.863, demonstrated acceptable values.

Table 5

Standardized Direct Effects and Standard Errors in Confirmatory Factor Analysis

Variable Relationship	Standardized (SE)	Lower Bound	Upper Bound
Perfectionism \leftarrow Self-Oriented	0.844 (0.030)	0.780	0.898
Perfectionism \leftarrow Other-Oriented	0.747 (0.042)	0.654	0.820
Perfectionism \leftarrow Socially Prescribed	0.723 (0.040)	0.635	0.795
Self-Compassion \leftarrow Self-Kindness	0.828 (0.029)	0.767	0.878
Self-Compassion \leftarrow Common Humanity	0.781 (0.031)	0.713	0.836
Self-Compassion \leftarrow Mindfulness	0.752 (0.033)	0.683	0.813
Selfie Editing \leftarrow Facial Editing	0.815 (0.031)	0.747	0.869
Selfie Editing \leftarrow General Effects Editing	0.816 (0.028)	0.755	0.869
Selfie Editing \leftarrow Number of Edits	0.863 (0.028)	0.804	0.913

Since all assumptions for structural equation modeling were met and the confirmatory factor analysis demonstrated suitable reliability, validity, model fit, and factor loadings, the final model was then examined.

In examining the direct effects, after controlling for age, neither perfectionism nor self-compassion had a statistically significant direct effect on selfie-editing. Subsequently, indirect effects were evaluated, which revealed that body image flexibility fully mediated the relationship between perfectionism and self-compassion with selfie-editing behavior.

Perfectionism had a positive and significant indirect effect on selfie-editing through body image flexibility, whereas self-compassion had a negative and significant indirect effect through the same mediator.

The R^2 coefficient for the endogenous variables body image flexibility and selfie-editing was 0.42 for both, indicating that 42% of the variance in body image flexibility was explained by the exogenous variables age, perfectionism, and self-compassion. Similarly, 42% of the variance in selfie-editing was explained by the predictors in the model. The statistical output of the model is shown below:

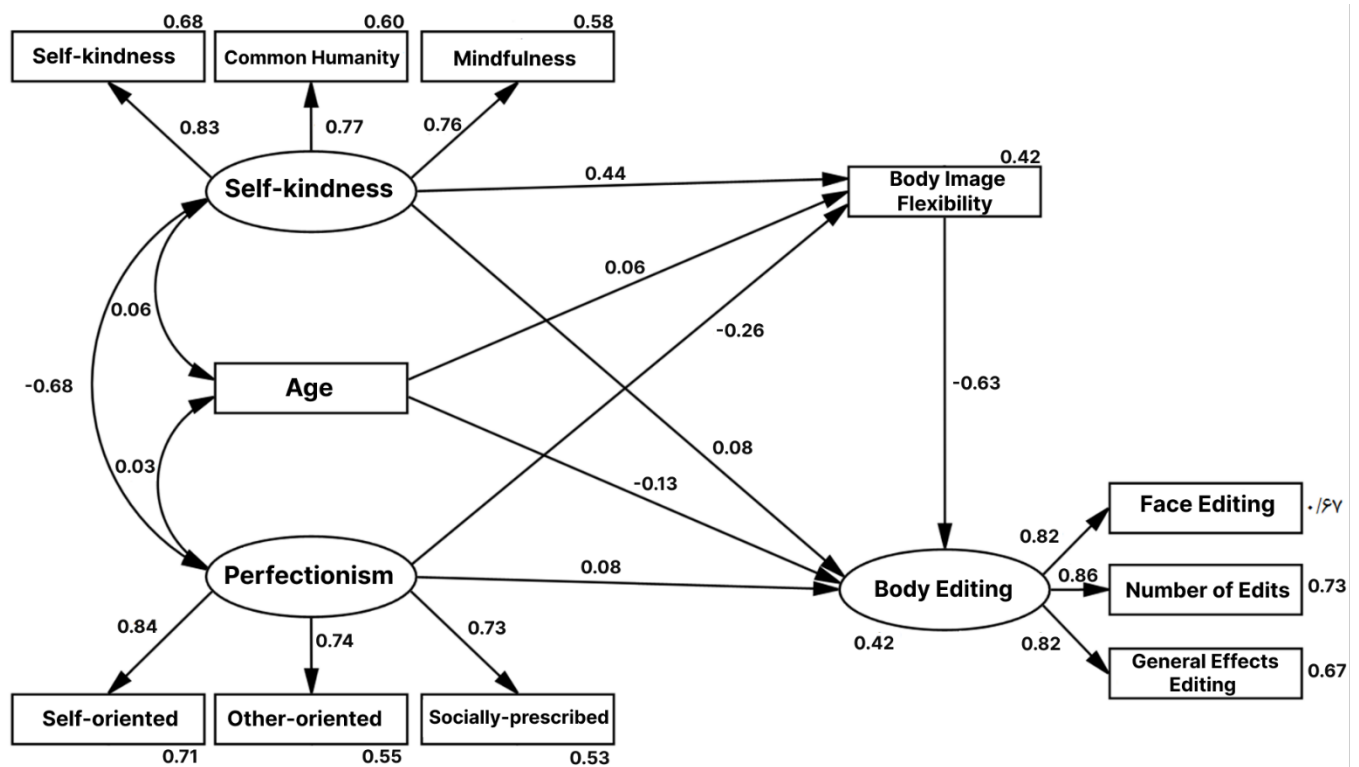
Table 6

Standardized Direct and Indirect Effects and Standard Errors in the Selfie-Editing Model

Type of Effect	Standardized (SE)	Lower Bound	Upper Bound
Direct Effects			
Body Image Flexibility \leftarrow Self-Compassion	0.437 (0.090)	0.256	0.609
Body Image Flexibility \leftarrow Age	0.062 (0.053)	-0.042	0.166
Body Image Flexibility \leftarrow Perfectionism	-0.256 (0.095)	-0.433	-0.065
Selfie Editing \leftarrow Self-Compassion	0.080 (0.101)	-0.116	0.284
Selfie Editing \leftarrow Age	-0.128 (0.056)	-0.236	-0.018
Selfie Editing \leftarrow Body Image Flexibility	-0.629 (0.069)	-0.755	-0.486
Selfie Editing \leftarrow Perfectionism	0.083 (0.093)	-0.088	0.273
Indirect Effects			
Perfectionism \rightarrow Body Image Flexibility \rightarrow Selfie Editing	0.161 (0.058)	0.048	0.276
Self-Compassion \rightarrow Body Image Flexibility \rightarrow Selfie Editing	-0.275 (0.068)	-0.416	-0.151
Age \rightarrow Body Image Flexibility \rightarrow Selfie Editing	-0.039 (0.034)	-0.110	0.025

Figure 1

Final Model of The Study



4. Discussion and Conclusion

The present study examined the mediating role of body image flexibility in the relationship between perfectionism and self-compassion with Instagram selfie-editing among university students. Using structural equation modeling and confirmatory factor analysis, the results revealed several significant findings that deepen our understanding of the psychological mechanisms underlying digital self-

presentation. Notably, while perfectionism and self-compassion did not show direct effects on selfie-editing behavior, both exhibited significant indirect effects through body image flexibility. Specifically, perfectionism had a positive indirect effect, whereas self-compassion had a negative indirect effect on selfie-editing, mediated entirely by body image flexibility. These results confirm that body image flexibility acts as a crucial cognitive-affective filter through which individual dispositions like perfectionism and

self-compassion are either translated into or buffered against compulsive appearance management behaviors on digital platforms.

The lack of a direct relationship between perfectionism and selfie-editing may appear counterintuitive given the abundant evidence linking perfectionism to body dissatisfaction and appearance-contingent self-worth (Limburg et al., 2017; Wang et al., 2019). However, this result underscores the importance of considering psychological flexibility as a moderating factor in how perfectionistic tendencies manifest behaviorally. Perfectionism is multifaceted, and its expression depends on intrapsychic variables such as acceptance, emotion regulation, and cognitive processing (Linardon et al., 2021; Rogers et al., 2018). In this study, participants with high perfectionistic tendencies were only more likely to engage in selfie-editing when they also exhibited low levels of body image flexibility. This aligns with findings suggesting that perfectionism alone does not inevitably lead to maladaptive behaviors unless accompanied by low psychological resilience or inflexible body image attitudes (Brichacek et al., 2024; Perey & Koenigstorfer, 2020).

Similarly, the absence of a direct relationship between self-compassion and selfie-editing echoes the theoretical proposition that self-compassion functions as a regulatory buffer rather than a direct inhibitor of appearance-related behavior (Messer et al., 2023; Sahin, 2021). Individuals with high self-compassion do not necessarily abstain from selfie-editing, but they are less likely to engage in it compulsively or in response to negative self-evaluation. This distinction becomes clearer through the mediating role of body image flexibility: those high in self-compassion tend to possess greater body image flexibility, which in turn reduces their reliance on digital appearance enhancement. These findings resonate with prior research highlighting the protective role of self-compassion in mitigating the internalization of beauty standards and self-objectification in online contexts (Perey & Koenigstorfer, 2020; Steindl et al., 2020).

The central role of body image flexibility observed in this study corroborates its conceptualization as a pivotal psychological asset in appearance regulation (Brichacek et al., 2024; Linardon et al., 2021). Consistent with previous meta-analytic and empirical work, the current findings demonstrate that individuals with high body image flexibility are less reactive to body-related distress and more capable of resisting the social pressure to alter their online appearance (Gioia et al., 2023; Rogers et al., 2018). This aligns with recent work on digital environments suggesting

that adaptive psychological processes, such as acceptance and defusion, can help mitigate the compulsive use of editing tools and reduce the psychological burden of aesthetic perfectionism (Ozimek et al., 2023; Xiao et al., 2023). Moreover, the significant variance (42%) explained in selfie-editing behavior through the model highlights the explanatory power of body image flexibility as a mediator and reinforces its potential as an intervention target in the domain of digital body image practices.

Another salient finding involves the role of age, which showed a significant negative relationship with both body image flexibility and selfie-editing. Younger participants were more likely to exhibit lower body image flexibility and engage in higher levels of editing. This is consistent with demographic trends indicating that emerging adults—particularly late adolescents and early 20s—are more immersed in visual-centric social platforms like Instagram and are more susceptible to appearance-based social comparison (Cary et al., 2024; Dixon, 2024). As previous studies have demonstrated, this age group is especially vulnerable to external validation loops that reward edited and filtered images, leading to the entrenchment of behaviors aimed at curating a socially acceptable digital persona (Vandenbosch et al., 2022). Therefore, age-related developmental sensitivities must be considered when interpreting selfie-editing patterns, especially in sociocultural contexts where digital self-expression is deeply intertwined with self-esteem and peer acceptance (Ispa, 2022; Woolf, 2025).

Interestingly, gender did not emerge as a significant factor in the structural model, and was thus excluded. This suggests that psychological constructs such as perfectionism, self-compassion, and body image flexibility exert influence on selfie-editing behaviors irrespective of gender. While earlier studies often found women to be more vulnerable to appearance pressures, recent work suggests that men are increasingly engaging in image curation and editing as societal norms around male appearance become more demanding (Meriluoto, 2023; Ozimek et al., 2023). Furthermore, the gender-neutrality of these psychological mechanisms might reflect a generational shift in how digital identity and aesthetics are managed, emphasizing the need for inclusive psychological models that move beyond binary frameworks (Gioia et al., 2023; Liu et al., 2022).

From a methodological standpoint, the model demonstrated strong psychometric properties. The confirmatory factor analysis supported the construct validity of the latent variables, with factor loadings within acceptable

ranges and fit indices exceeding conventional thresholds (Collier, 2020; Taber, 2018). The decision to eliminate the “body editing” subscale due to insufficient factor loading reinforces the importance of continuous refinement in digital behavior measurement tools, particularly as platform affordances and editing features evolve. As selfie-editing practices become more normalized, psychometric tools must keep pace to ensure that they accurately capture the behavioral and psychological nuances of online self-modification (Duffy, 2019; Pettersson, 2017).

Overall, the findings of this study converge with a growing body of literature that recognizes selfie-editing as more than a superficial activity. Rather, it represents a behavioral manifestation of deeper self-evaluative processes influenced by perfectionism, compassion toward the self, and one’s ability to flexibly navigate negative thoughts about physical appearance. As such, this study extends previous models by offering a mediational explanation that bridges these domains and underscores the critical role of psychological flexibility in digital body image regulation (Brichacek et al., 2024; Messer et al., 2023).

5. Limitations & Suggestions

Despite its contributions, this study is not without limitations. First, the use of a cross-sectional design precludes causal inferences. Although the mediational model was theoretically grounded and statistically supported, longitudinal or experimental designs are required to determine the temporal sequence of relationships. Second, the sample consisted solely of university students from Tehran, limiting generalizability. Cultural norms, platform usage patterns, and socioeconomic factors likely influence how individuals engage in selfie-editing behaviors and experience psychological constructs such as perfectionism and self-compassion. Third, self-report measures are susceptible to social desirability bias, particularly when assessing appearance-related behaviors that may be stigmatized or internalized. Although validated instruments were used, future studies may benefit from incorporating behavioral data or platform analytics for more objective assessments.

Future research should consider longitudinal designs to explore how these psychological variables interact over time and whether changes in body image flexibility predict corresponding shifts in editing behavior. Additionally, investigating the role of contextual factors—such as peer norms, algorithmic feedback, or influencer exposure—may

help explain the variability in how individuals respond to digital appearance pressures. Comparative studies across cultural contexts would also be valuable, particularly in light of globalization and the transnational nature of Instagram aesthetics. Furthermore, qualitative approaches such as in-depth interviews or photo-elicitation methods may provide richer insights into the subjective meanings and emotional drivers behind selfie-editing. Finally, intervention studies that seek to enhance body image flexibility through mindfulness or acceptance-based training could test the causal influence of this construct on reducing maladaptive selfie behavior.

Practitioners working with adolescents and young adults—particularly in educational, counseling, or clinical settings—should consider addressing digital self-presentation behaviors as part of broader discussions about body image, identity, and emotional resilience. Programs that cultivate self-compassion and body image flexibility may offer protective benefits against the psychological risks associated with excessive photo editing. Educators and parents can also play a role in promoting media literacy, helping youth critically engage with digital beauty norms rather than passively absorbing them. Moreover, platform developers and policymakers should consider integrating user-centered design features that encourage authenticity and de-emphasize algorithmic favoritism toward edited images. Creating healthier digital environments can support psychological well-being in the age of curated selfhood.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this article.

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