

Research Article

# The Role of Social Comparison and Body Image in Forming Appearance Anxiety in Adolescent Girls

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**Abstract:** This study aims to determine the role of social comparison and body image on appearance anxiety in adolescent girls. Social pressure and media exposure with ideal beauty standards make adolescent girls vulnerable to engaging in social comparison and developing a negative body image, which triggers appearance anxiety. This study used a quantitative approach with a correlational design involving 107 adolescent girls aged 18–24 years through convenience sampling. Data were collected using a Google Forms questionnaire consisting of three instruments: the Iowa-Netherlands Comparison Orientation Measure, the Multidimensional Body-Self Relations Questionnaire, and the Social Appearance Anxiety Scale. Data analysis used Spearman correlation and multiple linear regression. The results showed that social comparison has a significant positive relationship with appearance anxiety ( $r = 0.544, p < 0.001$ ), and negative body image is related to increasing appearance anxiety. The higher the tendency to engage in social comparison and the more negative the body image, the higher the appearance anxiety experienced. The findings emphasize the importance of understanding the psychological dynamics of appearance evaluation and strategies to strengthen positive body image in adolescent girls.

**Keywords:** Adolescent Girls; Appearance Anxiety; Beauty Standards; Body Image; Social Comparison.

## 1. Introduction

Late adolescence is a period characterized by increased sensitivity to social evaluation and pressure to meet beauty standards prevailing in society. In this phase, individuals are forming self-identity and seeking social acceptance, so physical appearance often becomes a source of worry and anxiety. Adolescent girls in particular are more vulnerable to pressure related to appearance due to social expectations and representations of the ideal body that are widely disseminated through media, especially social media. This phenomenon is closely related to the tendency of adolescents to engage in social comparison. Festinger (1954, in Sumadi et al., 2022) explains that individuals tend to compare themselves with others as an effort to assess their own abilities and characteristics. In the context of appearance, upward social comparison, comparing oneself with individuals considered more attractive, often results in dissatisfaction with the body and increased anxiety regarding how others evaluate physical appearance (Fardouly & Vartanian, 2016).

In addition to social comparison, body image is also an important factor that affects appearance anxiety. Negative body image is characterized by dissatisfaction with the shape, size, or certain features of the body, thus giving rise to feelings of shame, lack of self-confidence, and fear of social evaluation (Cash & Smolak, 2011). When individuals have

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negative perceptions of their bodies, they become more anxious in social situations that involve physical evaluation. Appearance anxiety is a form of social anxiety related to fear of negative evaluation regarding physical appearance (Hart et al., 2008). This condition can have an effect on mental health, social relationships, and quality of life. Therefore, it is important to understand how social comparison and body image contribute to appearance anxiety in adolescent girls. This study aims to examine the role of social comparison and body image on appearance anxiety in adolescent girls. This study is expected to become a basis for efforts in psychological prevention and intervention to strengthen positive body image and manage excessive social pressure.

## 2. Research Method

This study used a quantitative approach with a correlational design. Correlational research aims to examine the relationship between the variables studied and to predict the effect of independent variables on the dependent variable. In this study, the variables examined were social comparison (X1), body image (X2), and appearance anxiety (Y). The analyses used were Spearman correlation and multiple linear regression to determine the relationship and contribution of the two independent variables to the dependent variable. The participants in this study were adolescent girls aged 18–24 years who were in late adolescence and actively used social media. The sampling technique used non-probability sampling with the convenience sampling method, namely the selection of samples based on availability and ease of access to respondents who matched the characteristics of the study (Etikan et al., 2016). The calculation of the number of samples was carried out using G\*Power with clear statistical parameters so that the research became more directed and convincing (Faul et al., 2009; Mega et al., 2021), and 107 respondents who met the criteria were obtained, namely (1) adolescent girls aged 18–24 years, (2) actively using social media, (3) willing to complete the research questionnaire in full.

The data collection method was carried out using a Likert-scale questionnaire through Google Form. The research instruments consisted of three psychological scales that had been adapted in the Indonesian context, namely: (1) the Iowa-Netherlands Comparison Orientation Measure (INCOM) to measure the tendency of social comparison, (2) the Multidimensional Body-Self Relations Questionnaire (MBSRQ) to measure body image, and (3) the Social Appearance Anxiety Scale (SAAS) to measure appearance anxiety. The three instruments were arranged in the form of favorable and unfavorable statements in accordance with the rules of psychological scale construction. The validity test was conducted by calculating the correlation between each item statement and the total score to ensure that each item was able to measure the research variables properly. The reliability test used the Cronbach's Alpha method with the help of SPSS version 26.0 to ensure that the research instruments were consistent in measurement. Data analysis was carried out using multiple linear regression tests to see the effect of social comparison and body image on appearance anxiety, as well as Spearman correlation to see the relationship between research variables.

### 3. Results and Discussion

Before conducting hypothesis analysis, the researcher first carried out a reliability test to ensure that the research instruments had good internal consistency. The reliability test in this study was carried out using the Cronbach's Alpha coefficient.

**Table 1.** Reliability Test of Social Comparison, Body Image, and Appearance Anxiety.

Variable	Cronbach's Alpha
Social Comparison	0.682
Body Image	0.788
Appearance Anxiety	0.855

The Cronbach's Alpha values for all variables were above 0.60, so the instruments were declared reliable and could be used as research measurement tools. Furthermore, the study was conducted with respondents completing a Likert-scale questionnaire via Google Form. Assumption testing was carried out to assess the feasibility of hypothesis testing. This test used the one-sample Kolmogorov–Smirnov to see the relationships among research variables, and the results can be seen in the following table:

**Table 2.** Normality Test of Residuals (One-Sample Kolmogorov–Smirnov).

	p	Description
Asymp. Sig. (2-tailed)	0.171	Normal

Based on the results obtained after conducting the normality test in this study, an (Asymp. Sig. 2-tailed) value of 0.171 was obtained. This value is greater than 0.05, which means that the research data are normally distributed. Thus, it can be concluded that the assumption of normality is fulfilled, so the data in this study are appropriate to be analyzed using parametric statistical analysis, such as multiple linear regression analysis.

**Table 3.** Multiple linear regression.

R	RSquare	Adjusted RSquare	Std. Error	Sig. F Change
0.71	0.506	0.496	3,500	0

**Table 4.** Matrix Test Results.

Variable	X1	X2	Y1	Y2	Y3	Y4	Y5	M1	M2	M3
X1	r	1								
	Sig.	–								
X2	r	0.447	1							
	Sig.	0								
Y1	r	0.204	0.265	1						
	Sig.	0.035	0.004							
Y2	r	0.27	0.278	0.315	1					
	Sig.	0.005	0.002	0.001						
Y3	r	0.194	0.294	0.653	0.264	1				
	Sig.	0.045	0.002	0	0.006					
Y4	r	0.14	0.412	0.253	0.516	0.28	1			
	Sig.	0.15	0	0.009	0	0.003				

Y5	r	0.223	0.332	0.404	0.349	0.443	0.335	1	
	Sig.	0.021	0	0	0	0	0		
M1	r	0.469	0.463	0.564	0.31	0.511	0.403	0.397	1
	Sig.	0	0	0	0	0	0	0	
M2	r	0.55	0.308	0.291	0.231	0.244	0.302	0.174	0.484
	Sig.	0	0.001	0.002	0.017	0.011	0.002	0.073	0
M3	r	0.55	0.451	0.386	0.339	0.278	0.386	0.203	0.665
	Sig.	0	0	0	0	0.004	0	0.036	0.714
									1

The results of the study showed a significant relationship between social comparison and appearance anxiety ( $r = 0.554$ ,  $p < 0.001$ ). These findings support Festinger's theory (1954, in Sumadi et al., 2022) that individuals tend to evaluate themselves by comparing themselves with others. In adolescent girls, comparing themselves with figures considered more ideal can produce a discrepancy between the desired self and the actual self, thereby increasing anxiety about appearance (Fardouly & Vartanian, 2016). Data show that 98.3% of Indonesian adolescents aged 16–24 years are active on social media, with 78% exposed to content that triggers physical comparison (We Are Social & Meltwater, 2024). Repeated exposure to unrealistic beauty standards on social media strengthens the tendency for comparison and increases vulnerability to appearance anxiety (Fardouly et al., 2015; Tiggemann & Slater, 2014). Vogel et al. (2014) added that excessive social comparison can increase anxiety and depression, and in the long term trigger eating disorders (Stice & Shaw, 2002).

Body image showed a significant relationship with appearance anxiety ( $r = 0.590$ ,  $p < 0.001$ ), with a higher coefficient than social comparison. This indicates that internal perceptions of the body have a stronger effect on appearance anxiety. Cash and Smolak (2011) explain that negative body image gives rise to feelings of shame, lack of self-confidence, and fear of social evaluation. The study of Rohmani and Latifah (2019) found that 71.5% of adolescent girls in Yogyakarta were dissatisfied with their body shape. This dissatisfaction is reinforced by emerging adulthood (18–24 years), in which the search for identity and social acceptance becomes very important (Arnett, 2000; Papalia et al., 2008). The Body Area Satisfaction dimension had the lowest score in this study, indicating that dissatisfaction with specific body areas is the most critical aspect. Grogan (2016) explains that adolescent girls often evaluate their bodies based on narrow and unrealistic beauty standards presented by the media.

Simultaneously, social comparison and body image contributed 50.6% to appearance anxiety ( $R^2 = 0.506$ ,  $p < 0.001$ ). Separately, social comparison contributed 41.2%, while body image contributed 28.8%. These findings support the Tripartite Influence Model (Thompson et al., 1999), which states that media, family, and peers affect the formation of body image and body dissatisfaction in adolescents. Social media, as a representation of media and peer influence simultaneously, strengthens the process of internalizing ideal beauty standards, which then leads adolescents to view their bodies negatively.

The matrix test showed a strong correlation between Body Area Satisfaction and Appearance Evaluation ( $r = .663, p < .01$ ), as well as between Social Discomfort and Shame About the Body ( $r = .655, p < .01$ ). This correlation pattern indicates that dissatisfaction with specific body areas and the resulting shame reinforce each other in forming appearance anxiety. In other words, appearance anxiety in adolescent girls is the result of a complex interaction between internal evaluation of the body and external pressure from the social environment, which work simultaneously and mutually reinforce each other.

#### 4. Conclusion

This study concludes that social comparison and body image play a significant role in increasing appearance anxiety in adolescent girls. The regression results revealed that social comparison contributed 41.2% ( $R^2 = 0.412$ ) and body image contributed 28.8% ( $R^2 = 0.288$ ) to appearance anxiety, while simultaneously both contributed 50.6% to the variation in appearance anxiety. These findings are in line with the studies of Fardouly et al. (2015) and Tiggemann and Slater (2014), which showed that social comparison and negative body image increase appearance anxiety in adolescent girls. The similarity in the direction of these findings strengthens the empirical evidence that the internalization of ideal beauty standards and the tendency to engage in upward comparison are the main psychological factors that trigger emotional pressure related to appearance. An important contribution of this study to the development of psychology is the emphasis that the interaction between social comparison and body image is a strong and complementary predictor in explaining appearance anxiety, especially in the context of digital development in which intensive exposure to social media accelerates the internalization of beauty standards. These findings expand theoretical understanding regarding the dynamics of self-image formation during adolescence and at the same time provide a basis for the development of psychological interventions based on media literacy, self-acceptance, and the strengthening of adolescent mental health.

Based on the findings of this study, it is recommended that future researchers examine appearance anxiety by involving other variables such as self-esteem, emotion regulation, or peer pressure, as well as further reviewing the role of specific social media features and more diverse research methods to obtain a more comprehensive understanding. Practically, the results of this study can be utilized by educators, parents, psychology practitioners, and policymakers to develop media literacy programs and psychological support services to build positive body image and reduce the negative effect of social comparison. In addition, adolescent girls are expected to develop healthier self-acceptance, limit exposure to content that triggers social comparison, and strengthen social support as an effort to improve mental health in the digital era.

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