Research Paper

The Influence of Need to Belong and Social Comparison on Self-Presentation of Adolescent Girls as Instagram Users

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ABSTRACT: *This study aims to determine whether there is an effect of need to belong and social comparison on self-presentation among adolescent girls who use Instagram social media networking. The sampling technique was carried out by accidental sampling. The participants in this study were 423 adolescent girls (M=15.91 years old, SD=0.88 years old). The research measuring instrument used three scales, namely the online self-presentation scale, the need to belong scale and the social comparison scale. The data analysis technique used is multiple regression analysis. The results showed that there is an influence of need to belong and social comparison together on the self-presentation of adolescents girl who use Instagram social media networking, there is a positive influence of need to belong on self-presentation, and there is a positive influence of social comparison on self-presentation.*
KEYWORDS: *Self-Presentation, Need to Belong, Social Comparison, Adolescents.*

I. INTRODUCTION

The rapid growth of internet networks globally has significantly shaped communication patterns and social behavior. This development is largely driven by the increasing accessibility, affordability, and reach of the internet, which has led to a surge in the use of social media platforms[1]. As a result, social media has become an essential tool for communication, entertainment, and self-expression, especially among young people. According to a survey by KOMINFO, the use of social media in Indonesia has skyrocketed, with 191 million active users reported in 2022, which accounts for approximately 69% of the population [2].

There are six major categories for categorizing social media: social networking media, online journals (blogs), micro-blogging, media sharing, social bookmarking, and collaborative content media or wikis [3]. Social networking media is the most popular medium and comes in various forms, including Facebook, Instagram, WhatsApp, TikTok, Telegram, Google+, and others. The most widely used social networking application in Indonesia in 2022 was WhatsApp, with 88.7% of social media users in the country using the platform. Following WhatsApp were Instagram and Facebook, with 84.8% and 81.3% of users, respectively. Meanwhile, TikTok and Telegram had user shares of 63.1% and 62.8%, respectively [2]. Instagram, a leading platform for photo and video sharing, is particularly popular among Indonesian youth. With over a billion active users globally, it has become a dominant platform for self-presentation, especially among young women [4]. While Instagram provides entertainment, it also offers several other benefits, such as fostering creativity, enabling social connections, and providing an outlet for self-expression. Users can share their personal stories, ideas, and experiences, allowing them to connect with others in meaningful ways [5]. However, Instagram also poses significant psychological risks. Studies have found that Instagram can be addictive, leading users to neglect other activities. It can also decrease self-esteem and gratitude, as users compare their lives to others. Additionally, the platform encourages users to present an idealized version of themselves to gain likes and followers [5].

Self-presentation, according to Goffman's theory, refers to the impression or image that is managed or "created" to be shown to others [6]. The "ideal self" is a form of self-presentation in which individuals showcase an idealized version of themselves online, reflecting how they wish to be perceived by others [7]. Self-presentation is a crucial aspect of social and emotional development and plays a key role in adolescent identity formation. Adolescents, particularly adolescent girls, often use social networking platforms like Instagram to construct and showcase an idealized self-image [8]. They tend to select photos and content that emphasize physical appearance, lifestyle, and social achievements that are deemed positive. The influence of beauty standards and social pressures makes them highly selective in presenting themselves online in order to gain recognition and validation from their peers. Another study state that adolescent girls post selfies on Instagram to receive responses, particularly likes, from other users. They believe that the most frequent responses come from their peers. The more likes a photo receives, the more photos are uploaded, and these photos are considered to be the most popular [9].

There are some key factors influencing self-presentation strategies, which can be grouped into three main categories: personal factors, external factors, and situational factors. These factors are closely interrelated and interact not only during the self-presentation process but also when selecting goals and methods to achieve them [10]. One personal factor, Extraversion and Other-Directedness, is particularly related to adjusting to the environment, conformity, social desires, and needs . This factor allows individuals to choose self-presentation strategies that align with societal expectations and social norms. The adjustment made during self-presentation is driven by the "need to belong," which is the desire to integrate and be accepted within a social environment [11].

The need to belong arises as an individual's motivation to be accepted within a peer group. The desire for acceptance and to be part of a group leads adolescents to modify their self-image, which was previously shaped in childhood, to align with the norms of their current peer group [11]. Studies have found that adolescents, especially girls, post personal photos or videos on Instagram to seek peer acceptance and enhance their self-esteem [12]. Similarly, another research suggested that adolescents use Instagram to connect with peers and gain social acceptance [13]. Furthermore, studies showed that the stronger the need to belong, the more likely adolescents are to engage in self-presentation on Instagram [14]. This aligns with previous findings that a high need to belong leads adolescents to post content that receives validation from others, fulfilling their social needs by presenting an idealized version of themselves [13].

In terms of external factors, the *quality of estimator* explains that individuals present themselves based on comparisons with the perceived qualities or competencies of those observing them. When facing individuals they perceive as superior, individuals are likely to present themselves in an idealized way to appear more competent or equal to them [10]. Differences in norms, values, and behaviors displayed by others lead individuals to compare themselves with others, which ultimately results in a more accurate evaluation of their own abilities and perspectives. This aligns with social comparison theory, which states that people often compare themselves to others to assess their own abilities or opinions. Individuals tend to compare themselves to others who are similar, as this allows for a more accurate self-evaluation [15].

Social comparison is typically a spontaneous, effortless, and automatic process [15]. Social media, like Instagram, provides a platform for such comparisons, and adolescents, particularly girls, are prone to comparing themselves to their peers. Studies have found that increased time spent on Instagram leads to more social comparison, with users often editing photos to present an idealized version of themselves [16]. Another research further demonstrated that girls engage in self-presentation on social media to meet beauty standards set by peers, driven by the desire for validation and recognition [17].

Furthermore, theories of need to belong [11] and the social comparison [15] suggest that adolescent girls' social media behaviors are influenced by a deep-seated desire to gain acceptance within their peer group. The resulting pressure to meet these expectations can impact their online self-presentation strategies, often leading them to showcase an idealized self-image to gain validation from their social circles [16]. This phenomenon highlights the complex interaction between individual psychological needs and external social factors in shaping online behaviors.

Based on the above explanation, the widespread use of smartphones and the social media platform Instagram among many adolescent girls may pose a new issue in their social lives. This problem arises from the occurrence of online social comparison and the adolescent girls' need to belong to their social environment, which drives certain behaviors to continuously gain acceptance from their peers. As a result, adolescent girls tend to present themselves in the best possible light on social media. This phenomenon has motivated the researcher to investigate the influence of the need to belong and social comparison on the self-presentation of adolescent girls who use Instagram.

II. PURPOSE AND METHODS

This study aims to examine the impact of the need to belong and social comparison on self-presentation among adolescent girls who use Instagram *social media networking*. The participants included 423 adolescent girls (M=15.91 years old, SD=0.88 years old), selected using a non-probability accidental sampling technique. Data were collected using three scales: The Presentation of Online Self Scale (POSS), adapted from Fullwood [7], focuses on the "ideal self" dimension, which consists of 9 items. The scale demonstrates a good fit in the confirmatory factor analysis and has a reliability coefficient of 0.81. The Need to Belong Scale [18], adapted for the context of this study, consisting of 10 items measuring two aspects: affiliation with others and social acceptance, the scale demonstrates a good fit in the confirmatory factor analysis and has a reliability coefficient of 0.75; and the Social Comparison Scale, developed by the researcher based on Festinger's theory [15], consisting of 14 items measuring two types of comparison: upward and downward, the scale demonstrates a good fit in the confirmatory factor analysis and has a reliability coefficient of 0.85. Multiple regression analysis was used to analyze the data.

III. RESULT AND DISCUSSION

Result
3.1 Self-Presentation Among Adolescent Girls Using Instagram
Self-presentation among adolescent girls on Instagram was measured based on the mean, standard deviation, minimum, and maximum values of the study subjects. The self-presentation scale, consisting of 9 items with a score range of 1-5, showed an empirical mean of 30.36 (SD = 4.93), with a minimum score of 17 and a maximum of 42. The hypothetical mean was 27 (SD = 6), with a minimum of 9 and a maximum of 45. Self-Presentation categorization is made in two categories, namely low and high based on the fluctuation formula [19] as shown in Table 1 below:

Table 1. Categorization of Self-Presentation

Value Range	Categorization	Total (N)	Percentage (%)
X < 21	Low	15	3.55%
X > 31	High	181	42.79%

The results showed that the majority of subjects, 42.79% (181 subjects) were classified in the high category of self-presentation, while 3.55% (15 subjects) were categorized as low, and the rest cannot be classified because there are only two categories of self-presentation, namely low and high.

3.2 Need to Belong Among Adolescent Girls Using Instagram
The Need to Belong scale, consisting of 10 items with a score range of 1-5, revealed an empirical mean of 35.85 (SD = 5.74), with a minimum score of 20 and a maximum of 48. The hypothetical mean was 30 (SD = 6.6), with a minimum of 10 and a maximum of 50. Need to belong categorization is made in two categories, namely low and high based on the fluctuation formula [19] as shown in Table 2 below:

Table 2. Categorization of Need to Belong

Value Range	Categorization	Total (N)	Percentage (%)
X < 24	Low	10	2.4%
X > 36	High	213	50.3%

The results showed that the majority of subjects, 50.3% (213 subjects) were classified in the high category of need to belong, while 2.4% (10 subjects) were categorized as low, and the rest cannot be classified because there are only two categories of need to belong, namely low and high.

3.3 Social Comparison Among Adolescent Girls Using Instagram
Social comparison, measured using a 14-item scale with a range of 1-5, yielded an empirical mean of 53.88 (SD = 7.34), with a minimum of 35 and a maximum of 68. The hypothetical mean was 42 (SD = 9.3), with a minimum of 14 and a maximum of 70. The categories of social comparison are divided into three levels: low, medium, and high, based on the distribution of the normal curve using the standard deviation formula [19] as shown in Table 3 below:

Table 3. Categorization of Social Comparison

Value Range	Categorization	Total (N)	Percentage (%)
X < 33	Low	0	0%
33 ≤ X < 51	Medium	174	41.13%
X > 51	High	249	58.87%

The results showed that the majority of subjects, 58.87% (249 subjects) were classified in the high category of social comparison, while 41.13% (174 subjects) were categorized as medium, and no subjects were in the low category.

3.4 Hypothesis 1: The Influence of Need to Belong and Social Comparison on Self-Presentation in Adolescent Girls Using Instagram

The first hypothesis, testing the combined influence of Need to Belong and Social Comparison on Self-Presentation, was analyzed using multiple regression. The results, shown in Table 4 below:

Table 4. Effective Contribution of Need to Belong and Social Comparison on Self-Presentation

Model	R	R^2	Adjusted R^2	RMSE	Durbin Watson Autocorrelations	Statistic
H_1	.665	.442	.439	3.693	.098	1.802

The results indicate a correlation R-squared value of .442. This suggests that the two variables together explain 44.2% of the variance in Self-Presentation, with the remaining 55.8% attributed to other factors not investigated in this study. This represents a high effect size (>0.40).

Table 5. F and P Values for Hypothesis 1

Model		Sum of Squares	Df	Mean Squares	F	P
H_1	Regression	4538.593	2	2269.297	166.355	< .001
	Residual	5729.341	420	13.641		
	Total	10267.934	422			

The F-statistic of 166.355 and the p-value of < .001 indicate a significant influence of both Need to Belong and Social Comparison on Self-Presentation.

Table 6. Direct Effects of Need to Belong and Social Comparison on Self-Presentation

Model		Unstandarized	Standar Error	Standarized	T	P	Ket
H_1	(Intercept)	5.653	1.378		4.104	< .001	
	Need to Belong	.284	.041	.330	6.896	< .001	Significant
	Social Comparison	.270	.032	.402	8.395	< .001	Significant

The regression coefficients for Need to Belong (.284) and Social Comparison (.270), with standardized coefficients of .330 and .402, respectively, were both statistically significant (p < .001), as shown in Table 6. This confirms the positive direct effect of both variables on Self-Presentation. This analysis leads to the conclusion that Hypothesis 1 is supported, with both Need to Belong and Social Comparison significantly influencing Self-Presentation in adolescent girls.

Based on the table above, the multiple regression equation is as follows: Y = 5.653+.284 X1+.270 X2. The equation indicates that the influence of Need to Belong on Self-Presentation is positive. This means that if Need to Belong increases by 1 unit, it tends to increase Self-Presentation by 0.284 units. Additionally, the influence of Social Comparison on Self-Presentation is also positive. This means that if Social Comparison increases by 1 unit, it tends to increase Self-Presentation by 0.270 units.

3.5 Hypothesis 2: The Positive Influence of Need to Belong on Self-Presentation

Hypothesis 2, examining the effect of Need to Belong on Self-Presentation, was also tested using multiple regression. The results, shown in Table 7 below:

Table 7. Effective Contribution of Need to Belong on Self-Presentation

Model	R	R^2	R Change^2	RMSE	Durbin Watson Autocorrelations	Statistic
H_2	.615	.379	.379	3.892	.095	1.809

The R-squared value of .379 indicates that Need to Belong accounts for 37.9% of the variance in Self-Presentation, which classifies as a medium effect.

Table 8. F and P Values for Hypothesis 2

Model		Sum of Squares	Df	Mean Squares	F	P
H₂	Regression	3889.866	1	3889.866	256.760	< .001
	Residual	6378.068	421	15.150		
	Total	10267.934	422			

The F-statistic of 256.760 and the p-value of < .001 (Table 4.16) confirm a significant positive influence of Need to Belong on Self-Presentation. Thus, Hypothesis 2 is also supported, showing a significant positive effect of Need to Belong on Self-Presentation.

3.6 Hypothesis 3: The Positive Influence of Social Comparison on Self-Presentation
The third hypothesis, testing the effect of Social Comparison on Self-Presentation, was analyzed similiarly using multiple regression. The results, shown in Table 9 below:

Table 9. Effective Contribution of Social Comparison on Self-Presentation

						Durbin Watson
Model	R	R²	R Change²	RMSE	Autocorrelations	Statistic
H₃	.665	.442	.063	3.693	.098	1.802

The R-squared change of .063 indicates that Social Comparison contributes 6.3% to the variance in Self-Presentation, which classifies as a low effect.

Table 10. F and P Values for Hypothesis 3

Model		Sum of Squares	Df	Mean Squares	F	P
H₃	Regression	4538.593	2	2269.297	166.355	< .001
	Residual	5729.341	420	13.641		
	Total	10267.934	422			

The F-statistic of 166.355 and the p-value of < .001 (Table 4.18) suggest that Social Comparison significantly influences Self-Presentation. Therefore, Hypothesis 3 is also supported, indicating a significant positive effect of Social Comparison on Self-Presentation.

Discussion
The results of this study support the first hypothesis, demonstrating that Need to Belong and Social Comparison together significantly affect Self-Presentation among adolescent Instagram users. With an R square of 0.442 and a p-value < 0.001, it indicates a strong contribution of these two variables, accounting for 44.2% of the variance in Self-Presentation, with other unexplored factors influencing the remaining percentage. Specifically, Need to Belong has a positive effect, with a regression coefficient of 0.284, meaning that as Need to Belong increases by one unit, Self-Presentation also tends to increase by 0.284. Similarly, Social Comparison also shows a positive influence on Self-Presentation, with a regression coefficient of 0.270, meaning that as Social Comparison increases by one unit, Self-Presentation also tends to increase by 0.270.

The second hypothesis, examining the positive effect of Need to Belong on Self-Presentation, is also supported. The R square change of 0.379 with a p-value < 0.001 confirms that Need to Belong contributes moderately (37.9%) to Self-Presentation. This aligns with previous study, who found a moderate contribution of Need to Belong to Self-Presentation (28.6%) [13] and another study who reported a contribution of 26% [14]. High Need to Belong among adolescents encourages them to engage in Self-Presentation on social media, typically through positive displays such as uploading pictures or videos that seek social approval. Additionally, a research corroborates this, finding that Need to Belong is a significant driver of Self-Presentation on social networking sites [20].

For the third hypothesis, the analysis confirms a positive effect of Social Comparison on Self-Presentation, with an R square change of 0.063 and a p-value < 0.001. This suggests that Social Comparison has a small, yet significant, influence on Self-Presentation, explaining 6.3% of its variance. This finding is consistent with previous research 17,97% [21], 17.5% [22], and 4.9% [23] which all identified a significant but modest relationship between Social Comparison and Self-Presentation on Instagram. Adolescents who frequently compare themselves to others are more likely to engage in Self-Presentation, often adjusting their posts to align with perceived social standards.

This study also categorizes the three main variables. Self-Presentation was predominantly high among the subjects, with 42.79% showing high levels of Self-Presentation, which is consistent with previous research, who also reported high Self-Presentation in 61% of their subjects [14]. High Self-Presentation typically reflects a desire to present an idealized self-image on social media, often influenced by peer expectations. As for Need to Belong, most adolescents 50.3% scored high, showing a strong desire for social acceptance and support, aligning with previous research who also reported high need to belong in 51,4% of their subjects [23]. High Need to Belong often results in greater social media engagement, driven by the need for emotional and social

support. Finally, Social Comparison was high for the majority of subjects 58.87%, which reflects a tendency to compare oneself to others in terms of appearance, status, and achievements. This aligns with previous findings, where the majority of adolescents also exhibited high Social Comparison in 67.7% of their subjects [24] .

The findings of this study are consistent with previous research, showing that Need to Belong and Social Comparison both significantly influence Self-Presentation on Instagram, albeit to varying degrees. While Need to Belong has a stronger impact, Social Comparison still plays a notable role in shaping how adolescents present themselves online. These results underline the importance of understanding the psychological factors that drive adolescent behavior on social media platforms.

IV. CONCLUSION

This study demonstrates that Need to Belong and Social Comparison significantly influence Self-Presentation on Instagram among adolescents with an effective contribution value of 44.2%. Need to Belong has a stronger effect, explaining 37.9% of the variance, while Social Comparison contributes 6.3%. These findings align with previous research, indicating that adolescents with a high need for social acceptance and those who engage in frequent social comparisons are more likely to engage in self-presentation behaviors online.

The results highlight the prevalence of high Self-Presentation, Need to Belong, and Social Comparison among adolescents. These factors play a key role in shaping online behaviors and emphasize the importance of understanding their impact on adolescent development and social media engagement. Future research should further explore their influence on identity and well-being, with implications for supporting healthy social media usage among youth.

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