

Empathy and Sense of Community as Predictors of Adolescent Self-Esteem in Sleman, Indonesia

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Abstract

This study aimed to examine empathy and sense of community as simultaneous and partial predictors of self-esteem among high school adolescents in Sleman Regency, Yogyakarta. A quantitative approach with a cross-sectional correlational survey design was employed. The sample consisted of 428 adolescents aged 15-19 years, selected through multistage cluster random sampling. Data were collected using the Rosenberg Self-Esteem Scale (RSES), the Basic Empathy Scale (BES), and the Brief Sense of Community Scale (BSCS), all of which were adapted into Indonesian, and were analyzed using multiple linear regression. The regression model was statistically significant, $F=47.187$, $p<0.001$, with $R^2 = 0.182$, indicating that empathy and sense of community jointly accounted for 18.2% of the variance in self-esteem. At the partial level, empathy was not a statistically significant predictor of self-esteem ($B = -0.029$, $\beta = -0.53$, $t = -1.179$, $p = 0.239$), whereas sense of community emerged as a statistically significant predictor ($B = 0.402$, $\beta = 0.432$, $t = 9.701$, $p < 0.001$). These findings indicate that although empathy and sense of community jointly predicted self-esteem, only sense of community made a significant unique contribution. This suggests that supportive school environment that foster student's sense of community participation may play an important role in promoting adolescent self-esteem.

KEYWORDS

self-esteem; empathy; sense of community; adolescents.

Introduction

Adolescence is marked by changes both physically, emotionally, cognitively, and psychosocially that greatly affect the formation of one's identity (Domínguez-Martín et al., 2025; Idrees et al., 2024). This period is also known for its search for identity and its desire to live independently (Martínez-Casanova et al., 2024). This adolescence is also very vulnerable to being influenced by the surrounding environment such as peers, social media and the school environment which makes interpersonal relationships one of the important aspects in shaping personality (Supervía et al., 2023).

Adolescents who are studying in high school are in a developmental stage characterized by rapid changes both physically, emotionally, cognitively and relationally, so that at this age adolescents are active to explore values, roles and social relationships that will shape their identity (Branje et al., 2021). In the school environment, it is a place for daily interactions with peers, teachers and academic activities that cause adolescents to face the demands of identity transition and social pressure that can affect their psychological well-being (Pratama & Tjhin, 2024).

School is the main context in adolescent self-development because there are social interactions in it that can affect adolescents' assessment of themselves, self-esteem at this time is a basic foundation as a protector to prevent various negative behaviors that may arise during adolescence (Martínez-Casanova et al., 2024) and increasing self-esteem is very important for adolescent (Benítez-Sillero et al., 2024).

Self-esteem refers to a person's way of seeing, evaluating themselves, trusting themselves and feeling proud of themselves compared to others (Gasparello et al., 2025; Muriana & Baranauskas, 2025). Self-esteem is an important factor because it can foster a person's attitude to have a better personality (Marelita et al., 2025). Self-esteem is seen as an important foundation for self-awareness, one's mental health and emotional

responses to other people's views of oneself (Ramba et al., 2023)

A person with high self-esteem can form greater self-confidence as well and find his or her appearance attractive (Butun et al., 2025; Pop et al., 2022). The existence of good self-esteem will help adolescents to control their emotional stability, confidence, and ability to cope with stress and academic challenges by adjusting to their environment (Supervía et al., 2023). Adolescents with high self-esteem will strengthen their life satisfaction (Alabdulaziz, 2025) and have a good quality of life (Mikkelsen et al., 2020)

High self-esteem helps a person to adapt more effectively to the various demands of his life, both in academic, social and emotional contexts which can achieve more optimal success in various areas of life (Orth & Robins, 2022). In adolescence, self-esteem plays a positive role in obtaining satisfaction in life, since high self-esteem tends to experience more positive emotional states that can maintain a positive view of themselves (Turan et al., 2025). Self-esteem in adolescence tends to be unstable due to various changes in roles, identities and responsibilities (Zhao et al., 2021)

Several studies have reported that low self-esteem remains a persistent issue among adolescents in specific samples. Using the Roseberg Self-Esteem (RSES), (Chiha et al., 2023) found that 65.7% of 396 high school adolescents randomly recruited from six schools in the Sfax region, Tunisia, scored in the low to very low self-esteem range. Similarly, using the same instrument, (Qodariyah et al., 2024) reported that 55% of 116 adolescents in Bandung, Indonesia, were classified as having low self-esteem. Research by (Widyaningrum et al., 2025) with respondents as many as 354 adolescent high school students in Bantul, Yogyakarta found that as many as 56% of students have low self-esteem.

In addition, preliminary field data that have not yet been published, collected by the researcher at one senior high school in Sleman Regency, Yogyakarta, using the Indonesian adaptation of the Roseberg Self-Esteem Scale (RSES) by (Maroqi, 2018) with 45 students selected through convenience sampling, revealed that 33% of the students had low self-esteem. Although these findings are derived from a specific sample and not from a representative population, they indicate that low self-esteem remains an issue requiring attention among adolescents. Therefore, further research is warranted to better understand the factors that may explain and address this problem.

A person who has low self-esteem will foster negative evaluations in him (Lupitasari, 2021). A person's low self-esteem can trigger insecurity and can even result in negative psychological and physical impacts (Asadabadi & Karami, 2025). Without optimal self-esteem, adolescents will easily feel insecure and even experience anxiety so that it can trigger failure and refusal to socialize (Benítez-Sillero et al., 2024; Idrees et al., 2024).

Some of the factors that can affect self-esteem are self-image (Körner & Schütz, 2023), positive affectation (Coffey & Warren, 2020), empathy (Guasp Coll et al., 2020), peer support (Wickrama et al., 2025), sense of community (Park, 2022), family and parenting (Huang & Wan, 2025) and many more. This study takes empathy because it makes a considerable effective contribution to self-esteem of 13% (Turan et al., 2025), and sense of community has a positive and significant relationship with the self-esteem variable, with a correlation value of $r = 0.27$ (Park, 2022). However, these two variables have thus far only been examined as independent predictors of self-esteem, with no identified study examining their simultaneous and partial contribution within a single regression model among high school adolescents. This gap leaves unresolved whether empathy and sense of community jointly explain self-esteem, and which of the two carries greater relative importance once the

other is statistically controlled.

Empathy is a person's ability to understand and feel what others feel (Prado & Siquara, 2023). Empathy is defined as understanding emotional states and responding appropriately (Wang et al., 2024). Empathy is the cornerstone of human social interaction that allows a person to socialize and respond to the emotions of others (Sultan & Khan, 2025). Empathy in adolescence is an important factor for understanding and socializing with peers because there will be two-way interactions in it (Supervía et al., 2023).

Turan et al., (2025) provides strong empirical evidence that empathy serves as a significant predictor that can affect self-esteem in adolescents, through regression analysis it was found that high levels of empathy positively predict an increase in self-esteem. The findings are also supported by (Supervía et al., 2023) showing that higher levels of empathy are related to more positive self-esteem in adolescents, which reinforces the role of empathy as an influencing factor in strengthening and forming self-esteem in adolescents. Research (Guasp Coll et al., 2020) also shows that cognitive empathy contributes to influencing self-esteem through regression analysis that uses empathy as one of the significant predictors of adolescent self-esteem.

In addition to empathy that can affect self-esteem, there is another factor that can affect self-esteem, namely the existence of a sense of community. A sense of community gives a person the feeling that they do not feel alone in a state of crisis (Al-Omush et al., 2021). The need for a sense of community is an important psychological process that can affect the emotions and dynamics of a person's life, with the existence of a sense of community reflecting a sense of mutual meaning between members and a belief that involvement in a group can meet a common need (Cramer & Pawsey, 2023). Park (Park, 2022) found that sense of community plays a significant role as a predictor of self-esteem, where individuals who have a stronger level of attachment and sense of belonging to their community tend to show more positive self-evaluation. The existence of a high sense of community can also strengthen the self-esteem felt by adolescents, because adolescents need support, self-acceptance, and good relationships from the surrounding environment that affect their self-assessment (Novara et al., 2025).

Even though it has been researched before, several studies have found that the results are still inconsistent. Several studies prove that empathy can affect self-esteem (Supervía et al., 2023; Turan et al., 2025) however other studies have found that affective empathy negatively affects self-esteem, so it is not proven strong enough to show that empathy directly affects self-esteem and requires further exploration (Benítez-Sillero et al., 2024; Pérez-Fuentes et al., 2019). The difference in findings makes the researcher interested in further research on the role of empathy as a predictor of self-esteem.

The novelty of this study lies in the theoretical mechanism it rests, not merely its location. (Guasp Coll et al., 2020) examined empathy and self-esteem among Spanish adolescents, while (Park, 2022) examined sense of community and self-esteem among Korean adolescents, but neither tested both variables simultaneously. Both can be explained through sociometer theory, which holds that self-esteem monitors one's relational value and social inclusion (Enting et al., 2025). Prior evidence on empathy is inconsistent cognitive empathy relates to higher self-esteem, while affective empathy relates to lower self-esteem suggesting its effect may weaken once sense of community is accounted for, particularly given Indonesia's collectivistic culture where group belonging may carry more weight. Sleman Regency was selected because it is undergoing rapid urbanization linked to shifting communal ties among adolescents, reinforced by preliminary field findings showing 33% of students at one school had low self-esteem. Five schools public and private, distributed across different sub-

districts were selected using multistage cluster random sampling to produce a representative picture of the adolescent population across Sleman Regency, with high school adolescents chosen because this stage is central to identity and self-esteem formation.

This study is expected to contribute theoretically to developmental and social psychology by clarifying inconsistent findings on empathy as a predictor of self-esteem, and by extending its relational mechanism to sense of community within an Indonesian adolescent population. Accordingly, this study aims to examine empathy and sense of community as simultaneous and partial predictors of self-esteem among high school adolescents in Sleman Regency, Yogyakarta. Based on this objective, the following hypotheses are proposed: (H1) empathy and sense of community simultaneously predict self-esteem; (H2) empathy partially predicts self-esteem; and (H3) sense of community partially predicts self-esteem.

Methods

Types of Research

This study employs a quantitative approach using a cross-sectional correlational survey design. Data on empathy, sense of community and self-esteem were collected from each respondent at a single point in time, with the individual adolescent as the unit of analysis. Multiple linear regression was used because it allows the simultaneous and partial contribution of two independent variables, namely empathy and sense of community, to be estimated on a single dependent variable, namely self-esteem, within one model.

Research Location

The research was carried out in Sleman Regency, Special Region of Yogyakarta, which was chosen based on data from the Central Statistics Agency (BPS) because it has 55 high schools, the most compared to other districts in the Special Region of Yogyakarta. The research took place from September 2025 to June 2026.

Research Subject

Sampling in this study used the multistage cluster random sampling technique, in which sample selection was carried out in stages through several levels of clusters, using the list of sub-districts, villages, and high schools in Sleman Regency obtained from BPS (2025) as the sampling frame.

In the first stage, five sub-districts were randomly selected from the 17 sub-districts in Sleman Regency, namely Depok, Berbah, Mlati, Ngaglik and Sleman District. In the second stage, one village was randomly selected from each chosen sub-district, namely Codongcatur, Sendangtirto, Siduadi, Sukoharjo and Pandowoharjo. In the third stage, one public or private high school was randomly selected from each chosen village, resulting in five schools as research sites. In the final stage, one class was randomly selected from each school regardless of grade level, and all students in the selected class were included as respondents, with no additional inclusion or exclusion criteria applied. The minimum sample size was determined using the (Krejcie & Morgan, 1970) table, based on a population of 16.317 high school students in Sleman Regency for 2024/2025 school year reported by BPS (2025), yielding a minimum required sample of approximately 375 students. Given that cluster sampling was used, this minimum figure does not account for the design effect arising from the non-independence of students within the same class, which is acknowledged as a limitation of the present study.

The random sampling process initially resulted in 430 students from five senior high schools in Sleman Regency

being recruited as research respondents. Of these, two respondents were excluded from the analysis because they did not complete one of the questionnaires provided. Therefore, a total of 428 respondents were included in the final analysis. The majority of respondents were female (59%) age 15-17 years (96%), and in Grade 11 (58%). The demographic characteristics of the respondents are presented in Table 1.

Data Collection Techniques and Instruments

The research data was collected using a questionnaire method that was distributed directly to high school students in Sleman Regency after obtaining permission from the school. This study uses three instruments, namely the *Rosenberg Self-Esteem Scale (RSES)* developed by (Rosenberg, 1965) and adapted into Indonesian by Maroqi (2018) to measure self-esteem, the *Basic Empathy Scale (BES)* developed by (Jolliffe & Farrington, 2006) and adapted into Indonesian independently by researchers to measure empathy, and *Brief Senses of Community Scale (BSCS)* developed by (Peterson et al., 2008) and adapted into Indonesian independently by researchers to measure sense of community.

Both instruments, the BES and BSCS, were independently adapted into Indonesia through the following steps, translation by two linguists, back translations, synthesis, content validation by two experts, readability test, and final item. The complete documentation of this adaptation process is available as supplementary material and may be requested from the author or editor by interested readers.

All instruments used a 5-point Likert scale, with a response range of 1 (very inappropriate) to 5 (very appropriate), while unfavorable items were scored inversely.

Instrument Validity and Reliability

The content validity of the instruments was evaluated through expert judgment by two psychology lectures from Universitas Negeri Yogyakarta, both holding doctoral degrees in psychology and practicing as licensed psychologists, using Gregory's formula with interpretations criteria ranging from 0.80-1.00 (very high) to 0.00-0.19 (very low). The results showed that all items across the three instruments were agreed upon by both experts with no discrepancies in judgment, yielding a content validity coefficient of 1.00 for self-esteem scale, empathy scale and sense of community scale, indicating very high content validity for all instruments. Detailed calculations and the expert review form are available and

Table 1. Respondent Demographic Data

Respondent Classification	Respondent Criteria	Frequency	Percentage
Age	15 - 17	412	96%
	18 - 19	16	4%
Gender	Male	174	41%
	Female	254	59%
Grade Level	Grade 10	174	41%
	Grade 11	248	58%
	Grade 12	6	1%

Table 2. Categorization of Variables

Category	Norma Category
Very High	$M + 1.5SD < X$
Height	$M + 0.5SD < X \leq M + 1.5SD$
Medium	$M - 0.5SD < X \leq M + 0.5SD$
Low	$M - 1.5SD < X \leq M - 0.5SD$
Very Low	$X \leq M - 1.5SD$

Description:

X (Total score of each respondent), M (Mean = $1/2 (X_{Max} + X_{Min})$), SD (Standard Deviation = $1/6 (X_{Max} - X_{Min})$), X_{Max} (number of questions X scattered scale score), X_{Min} (number of questions x smallest scale score).

can be provided upon request to the corresponding author.

The validity of RSES construct adapted into Indonesian by Maroqi (2018) to measure self-esteem, the results obtained are 3 items, namely 1, 5 and 8 less than the t -value <1.96 so that only 7 items are used for the RSES scale resulting in RMSEA 0.000 (<0.08), so that the model can be said to have a very good level of fit (close fit). The BES contract validation showed a CFI value of 0.977 (>0.90), TLI 0.969 (>0.90) and RMSEA 0.038 (<0.08), so the model can be said to have an excellent level of fit (close fit), and BSCS showed CFI values of 0.985 (>0.90), TLI 0.970 (>0.90) and RMSE 0.065 (<0.08). Thus, the four-dimensional model on BSCS is declared constructively valid and can be used to measure sense of community. Furthermore, the item validity test showed that all items on the self-esteem scale and sense of community were valid, while on the empathy scale there were two items that fell (items 4 and 6), so the analysis was carried out using 18 items.

The reliability of the instruments was analysed using Cronbach's alpha for the self-esteem RSES scale because this scale is included in the unidimensional scale. And Composite reliability for empathy and sense of community scale with the help of Jamovi software because the BES and BSCS scales are multidimensional. The results of the analysis showed that Cronbach's alpha value was 0.76 on the self-esteem scale, composite reliability was 0.81 on the empathy scale, and 0.89 on the sense of community scale. All instruments have a reliability coefficient above 0.70 so they are declared reliable.

Data Analysis Techniques

The researcher conducted statistical data analysis techniques, namely descriptive analysis, prerequisite tests which include normality tests, linearity tests, multicollinearity tests and heteroskedasticity tests. As well as the hypothesis test which includes the F test, the T test, multiple regression line analysis and the (R^2) Determination Coefficient which uses the help of IBM SPSS and Jamovi applications.

Descriptive analysis aims to provide a description of the data from the variables obtained from the research subject by presenting data in the form of categorization data. The following is a Table 2 for the categorization of variables.

Table 3. Hypothetical and Empirical Data

Variable	Hypothetic				Empiric			
	Min	Max	Mean	SD	Min	Max	Mean	SD
Self-Esteem	7	35	21	4,7	7	35	24	3,98
Empathy	18	90	54	12	42	87	62,9	7,26
Sense of Community	8	40	24	8	14	40	29,6	4,28

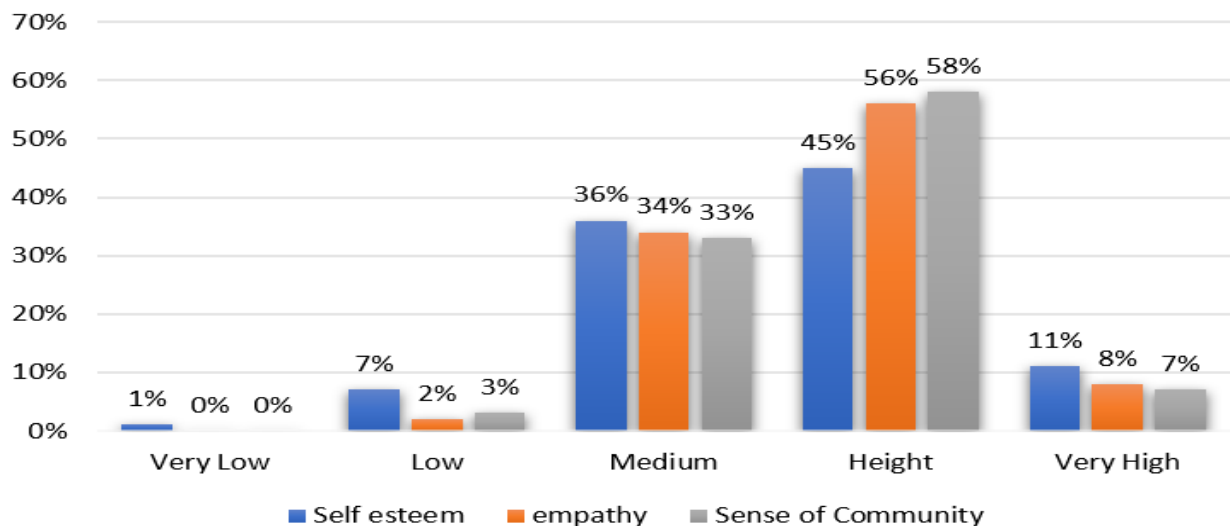


Figure 1. Categorization graph

Result and Discussion

Descriptive analysis

A descriptive analysis was conducted on 428 high school students in Sleman Regency. The results of the analysis showed that the average empirical score of all variables was higher than the average hypothetical score, so that the respondents' self-esteem, empathy, and sense of community were relatively high. The following are the results of hypothetical and empirical data that can be seen in Table 3.

Based on the results of the categorization, the majority of respondents were in the high category for all research variables. As many as 45% of respondents have high self-esteem, 56% have high empathy, and 58% have a high sense of community. A summary of categorization is presented in the graph of Figure 1.

Prerequisite Test

The results of the normality test using Kolmogorov-Smirnov on unstandardized residual showed a significance value of 0.071 ($p > 0.05$), so that the data was distributed normally. The linearity test showed that the relationship between empathy and self-esteem ($p = 0.359$) and sense of community with self-esteem ($p = 0.116$) was linear. The multicollinearity test showed a tolerance value of 0.970 and VIF 1.031 in both predictor variables, so that multicollinearity did not occur. The heteroscedasticity test through scatterplot and the Glejser test also showed that heteroscedasticity did not occur, with an empathy significance value of 1.0 and a sense of community of 0.548 ($p > 0.05$). Thus, all regression assumptions have been fulfilled so that multiple linear regression analysis can be performed.

Hypothesis Testing

The results of the F test showed that the regression model was significant ($F = 47.187$; $p = 0.001$), so that empathy and sense of community were simultaneously predictors of self-esteem in high school adolescents in Sleman Regency. Data that can be seen in Table 4.

The results of the t-test showed that empathy had no significant effect on self-esteem ($B = -0.029$; $t = -1.179$; $p = 0.239$), while sense of community had a significant and positive effect on self-esteem ($B = 0.402$; $t = 9.701$; $p = 0.001$). Data that can be seen in Table 5.

The regression equation obtained was $Y = 13.905 - 0.029X_1 + 0.402X_2$. A determination coefficient value (R^2) of 0.182 showed that empathy and sense of community were simultaneously able to explain 18.2% of the variation in self-esteem, while 81.8% were influenced by other factors outside the study. Data that can be seen in Table 6.

The discussion was carried out to answer the hypothesis that had been formulated based on the results of the data analysis obtained. Based on the results of the first hypothesis test (H1), it shows that empathy and sense of community simultaneously or together play a role as predictors of self-esteem in high school adolescents in Sleman Regency, Yogyakarta. These findings show that in adolescence, self-esteem is not formed alone, but is the result of an interaction between several interpersonal and social factors that are interrelated in daily life. This shows that the individual's ability to understand others and attachment to the social environment has an important role in shaping the self-assessment of adolescents.

These findings are in line with (Turan et al., 2025) which shows that empathy as a whole has a role in predicting self-esteem in adolescents, where high levels of empathy are associated with increased self-esteem in adolescents. In line with that, (Supervía et al., 2023) found that empathy can affect self-esteem in adolescents, which confirms that empathy is related to the development of self-assessment in adolescents. (Guasp Coll et al., 2020) also proved that empathy is one of the predictors of self-esteem, a person's high empathy can affect self-esteem and life satisfaction. The existence of empathy forms a positive self-assessment or self-esteem, because of the ability of adolescents to give attention and care to others.

In addition to empathy that can affect self-esteem, a sense of community can also affect self-esteem, a sense of community can play a significant role as a predictor of self-esteem in adolescents, adolescents who have a strong attachment to their community tend to show more positive self-esteem (Park, 2022) This finding is further strengthened by (Novara et al., 2025) who state that a high sense of community is related to increased self-esteem, due to the presence of social support, acceptance and positive relationships in the adolescent environment.

The acceptance of this first hypothesis that empathy and sense of community are simultaneously predictors of self-esteem in high school adolescents can be explained through two complementary psychological pathways, namely the intra-personal pathway (empathy) and the contextual social pathway (sense of community). Empathy allows adolescents to understand and respond appropriately to the feelings of others, thus leading to warmer social interactions and reducing conflict and can strengthen positive self-esteem (Turan et al., 2025) Meanwhile, the sense of community gives adolescents the experience of connection with their social environment, both at school and outside of school, which also forms a sense of self-worth, the existence of adolescents' connection to their school community is an important predictor of student psychological conditions, one of which is how students assess and value themselves (Štremfel et al., 2024)

The combination of empathy and a sense of community can form a complementary psychological foundation in increasing self-esteem in adolescents. Based on the overall results of the research and the support of previous research on the first hypothesis, it can be concluded that empathy and sense of community are simultaneous predictors of self-esteem in high school adolescents in Sleman Regency, Yogyakarta. These findings show that adolescent self-esteem can be formed through a combination of interpersonal abilities and social attachment, so that empathy and sense of community can have an influence on the formation of self-esteem in adolescents.

The results of the second hypothesis test (H2) showed that empathy partially did not play a role as a predictor of self-esteem in high school adolescents in Sleman Regency, Yogyakarta, so the second hypothesis in this study was rejected. The results show that empathy does not have a significant influence on self-esteem, these findings indicate that adolescents' ability to understand the emotional state of others is not necessarily directly related to the formation of self-esteem.

The results of the analysis of the categorization of the empathy variable of the majority of respondents were in the high category, which shows that some adolescents have good empathy with the surrounding environment. However, based on the results of effective donations, the empathy variable is known to have no contribution to self-esteem. This condition shows that the high empathy possessed by adolescents cannot necessarily be followed by high self-esteem, thus indicating that the ability to understand the emotions of others is not always the main factor that can influence adolescent self-esteem.

These findings are reinforced by (Ballester et al., 2022) who

Table 4. F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1226.705	2	613.352	47.187	< 0.001
Residual	5524.293	425	12.998		
Total	6750.998	427			

Table 5. T Test Results

Variable	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Constant	13,905	1.799		7,730	< 0,001
Empathy	- 0, 029	0.024	- 0.053	-1,179	0,239
Sense of Community	0,402	0.041	0.432	9,701	< 0,001

Table 6. Determination Coefficient Test Results (R^2)

Variable	Standardized Coefficients Beta	Correlation Coefficients	Unique Contribution
Empathy	- 0,053	0,023	- 0,001
Sense of Community	0,432	0,423	0,183
Total (R^2) Empathy and Sense of community	-	-	0,182

show that empathy, whether cognitive or affective dimensions do not show a significant relationship with self-esteem, which means empathy and self-esteem can work independently within the psychological structure of the individual, so the level of empathy a person has does not necessarily determine the high and low self-esteem, then the emotional abilities of others do not automatically form a more positive self-esteem.

In line with previous findings, the study conducted by (Benítez-Sillero et al., 2024) also provides an explanation about the relationship between empathy and self-esteem is not always positive, the results of the study show that cognitive empathy has a positive relationship with self-esteem, while affective empathy actually shows the opposite relationship, meaning that the higher the individual's emotional involvement with people's feelings. Otherwise, the self-esteem they have tends to decrease. The same results are also explained by (Pérez-Fuentes et al., 2019) that affective empathy does not play a positive role as a positive predictor of self-esteem, even in respondents with longer work experience the influence of empathy is completely absent from the prediction model because their level of self-esteem is more determined by mood factors and adaptability than empathy capacity.

This condition can occur because affective empathy involves high emotional involvement in the condition of others, so that individuals more easily absorb negative emotions that result in emotional exhaustion and personal stress, so that affective empathy is actually a vulnerable factor that does not contribute to self-esteem (D'Osia & Meier, 2024). A person who cares deeply about the emotions of others tends to absorb the problems and suffering of others. The transmission of these emotions, although beneficial for friendship, can cause emotional exhaustion, stress or excessive responsibility for the well-being of others, as a result of which one's well-being can be neglected and potentially affect self-esteem over a long period (Dillon-Owens et al., 2022).

This second hypothesis is rejected, of course, it can be explained through several factors that allow this to happen, one of which is that it can be understood from the characteristics of adolescent psychological development itself. The adolescent period is characterized by various major changes both physically, emotionally, socially and cognitively, so that their psychological condition in general is still labile and not fully mature. According to (Bogaerts & Claes, 2023) explain that the process of identity formation in adolescents does not always run smoothly and consistently, as it follows different directions of development in each individual, depending on the experiences and pressures they face on a daily basis.

This inconsistency during this period is also reinforced by the findings (Chen, 2025) who show that adolescents are much more sensitive to feedback from their surrounding social environment compared to adults, where their emotions and self-judgment can change rapidly simply because of responses from acquaintances in the surrounding environment. This unstable psychological condition is a characteristic of adolescence in high school and this also has an impact on adolescent self-esteem, which becomes more easily influenced by environmental factors than self-abilities such as empathy.

Another factor that can be traced is the difference in the cultural, linguistic and social context in which adolescents grow and develop. Several previous studies have shown that empathy can affect self-esteem (Guasp Coll et al., 2020; Supervia et al., 2023; Turan et al., 2025). However, this study explains that empathy is not a predictor of self-esteem, this is reinforced by (Nila et al., 2025) finding that the way Indonesian people tend to hold back or not show their feelings of empathy openly, because the culture in Indonesia

prioritizes togetherness and group harmony, so people prefer to keep their own personal feelings in order to maintain a close relationship in harmony with the people around him. This indicates that adolescents' responses to empathy measurement instruments have the potential to reflect social norms about how to behave that is considered appropriate, rather than actual emotional experiences, so that the recorded empathy data are less optimal in predicting self-esteem. The existence of several of these factors allows the cause of rejection of the second hypothesis in this study.

The results of the third hypothesis test (H3) explain that the sense of community plays a role as a predictor of self-esteem in high school adolescents in Sleman Regency, Yogyakarta, so that the third hypothesis in this study can be accepted. This finding explains that the sense of togetherness, sense of belonging and involvement of adolescents in their social environment, can affect their self-esteem, thus the sense of community has an important contribution in helping adolescents in building positive self-esteem.

The results of the categorization analysis of the sense of community variable majority of respondents were in the high category, which means that some adolescents have a good sense of community with the surrounding environment. These conditions can help adolescents feel accepted, valued and part of their social group, thus supporting the formation of good self-esteem (Jang & Chung, 2024). In the results of effective contribution, the sense of community variable is also known to have a greater contribution than the empathy variable to self-esteem, which shows that the sense of community is a more dominant variable in predicting self-esteem in adolescents. These results can occur because the sense of community is directly related to adolescents' experiences in obtaining social support, acceptance and attachment to the surrounding environment, which is an important aspect in building positive self-assessment (Novara et al., 2025; Salami et al., 2019; Yip & Chan, 2021).

This finding is strengthened by the research of (Park, 2022) who through his longitudinal study found that the sense of community in early adolescence is able to significantly predict the development of individual self-esteem, in addition to the finding of good reciprocity between the sense of community and self-esteem. In line with that, research (Yip & Chan, 2021) also found that bringing a sense of community can have a positive impact on self-esteem in adolescents. A sense of community fosters a teen's sense of acceptance and an important role in their environment, which can help improve their positive self-esteem.

The high sense of community makes teenagers feel valued. Being accepted and able to establish good interaction with the surrounding environment so that it can help form good self-esteem, especially in adolescent development, this sense of community is one of the aspects that can support a person to feel more meaningful and valuable (Novara et al., 2025). This sense of community can also help improve psychological well-being, reduce feelings of loneliness, and can encourage adolescents' involvement in social activities in their environment (Littman, 2024).

The existence of a sense of community in the school environment and the community can play a role in maintaining adolescents' mental health, a supportive social environment can help and prevent adolescents from eliminating suicidal thoughts or other negative actions (Shin & Bae, 2024). Adolescents who feel accepted and have attachment to their environment tend to have better psychological conditions that are able to build more positive self-esteem.

Based on the results of research and previous research support, it can be interpreted that the third hypothesis is accepted, namely that the sense of community is partially a predictor of self-esteem in high school adolescents in Sleman Regency, Yogyakarta. Therefore, a sense of community can

have a positive effect on the formation of self-esteem in adolescents. So that strengthening the sense of community in adolescents plays an important role in increasing self-esteem.

Research by (Prati & Cicognani, 2019) found that the sense of community in the school environment is an important foundation for adolescent self-esteem, by participating in extracurricular activities (Bang et al., 2020) participating in school organizations (Flaherty et al., 2022) and actively participating in group work (Strom et al., 2022). Teachers can also form group learning activities to strengthen student relationships (Meza et al., 2025) thus strengthening the sense of community can be a suggestion for adolescents, teachers and schools to be able to improve self-esteem.

The results of the analysis of the categorization of the self-esteem variable of the majority of respondents were at high categorization, which showed that some adolescents had good self-esteem. The results of the determination coefficient value (empathy variable and R^2) sense of community variable were together able to explain the contribution of variants to the self-esteem variable of 18.2%, while the remaining 81.8% was explained by other variables outside this study. This relatively modest explanatory power indicates that self-esteem is likely also shaped by other factors, such as body image (Körner & Schütz, 2023), peer support (Yuh, 2023), positive affect (Coffey & Warren, 2020), parenting (Huang & Wan, 2025). Future research is therefore recommended to incorporate these variables in order to gain a more comprehensive understanding of the factors affecting self-esteem in adolescents, highlighting a substantive limitation of the present study.

Environmental factors around adolescents, such as parental upbringing, peer relationships, and school climate, may be more closely associated with self-esteem than empathy alone. In this model, sense of community showed a larger unique association with self-esteem than empathy. Overall, based on the results of the research and discussion that has been described, it is concluded that empathy and sense of community simultaneously play a role as a predictor of self-esteem in high school adolescents in Sleman Regency, Yogyakarta, but partially empathy does not play a role as a predictor of self-esteem, while sense of community partially plays a role as a predictor of self-esteem. These findings suggest that a sense of community has a greater contribution to self-esteem than empathy.

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Conclusion

The results showed that empathy and sense of community jointly formed a significant regression model for self-esteem among high school adolescents in Sleman Regency. Empathy was not independently associated with self-esteem after adjustment, whereas sense of community showed a positive independent association with self-esteem. These findings indicate that sense of community had a stronger role in predicting self-esteem than empathy. However, the cross-sectional design limits causal interpretation, and the findings should not be interpreted as evidence that increasing sense of community will directly increase self-esteem.

Based on the results of the research, schools are expected to increase the sense of community through activities that encourage active student involvement, such as organizations, extracurricular activities, and collaborative learning, so that students feel accepted, appreciated, and attached to the school environment. Teachers are also expected to create a positive and inclusive classroom climate to support the development of students' self-esteem. In addition, further research is recommended to examine other variables that have the potential to predict self-esteem, such as self-image, peer support, positive affect, parenting, and the dimension of empathy, in order to gain a more comprehensive understanding of the factors that affect self-esteem in adolescents.

Author contributions

Siti Khofifatul Mardhiyyah, as the first author, was responsible for the overall research process, including data collection, data analysis, interpretation of results, and manuscript writing. Yuli Ayriza, as the second author and supervisor, contributed by guiding, directing an evaluating the entire research and manuscript writing process.

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