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Social Guidance, Empathy and Interpersonal Skills among Students at SMA Muhammadiyah 2 Medan, Indonesia

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ABSTRACT: Social guidance services play an important role in developing adolescents' empathy and interpersonal skills. However, limited understanding of the relationships among these factors has challenged the development of effective school guidance programs. This study aimed to examine the relationships between empathy, interpersonal skills, and social guidance services among students at SMA Muhammadiyah 2. A quantitative correlational design was employed involving 120 students selected through proportional random sampling. Data were collected using a validated and reliability-tested four-point Likert-scale questionnaire and analyzed using regression analysis with SPSS version 26. The data satisfied the normality and linearity assumptions. Regression analysis revealed a significant positive association between empathy and social guidance services ($p = 0.015$), whereas interpersonal skills showed a significant negative association ($p = 0.005$). The model explained 87.0% of the variance in social guidance services ($R^2 = 0.870$). Empathy and interpersonal skills were significantly associated with social guidance services, although their relationships differed in direction. These findings highlighted the importance of considering students' socio-emotional characteristics when developing school guidance programs. Further research is needed to clarify these relationships and their practical implications.

KEYWORDS: Social guidance services; empathy; interpersonal skills; socio-emotional.

1. Introduction

Adolescence represents a crucial developmental stage in shaping individuals' social and emotional characteristics [1]. During this period, high school students are expected not only to achieve academic success but also to develop empathy and interpersonal skills as essential 21st-century competencies. Schools play a strategic role in balancing intellectual and social development through educational programs, including social guidance services [2]. These services aim to help students understand themselves and their surroundings, improve social interactions, and develop empathy toward others [3]. Despite their implementation in various schools, low levels of empathy and interpersonal skills remain persistent challenges among high school students [4]. These problems are reflected in bullying, limited social awareness,

and difficulties in cooperation and effective communication. Such conditions indicate challenges in understanding others' perspectives, expressing empathy, and establishing healthy interpersonal relationships, which are essential components of adolescents' socio-emotional development [5, 6].

Similar problems have been observed at SMA Muhammadiyah 2 Medan, where some students exhibit individualistic behavior, limited sensitivity to their peers' emotional conditions, and low participation in collaborative activities. Teachers have also reported difficulties among students in teamwork and assertive communication. These conditions raise concerns regarding the effectiveness of existing social guidance services in supporting students' empathy and interpersonal development. The central problem is the persistence of socio-emotional difficulties despite the availability of school-based social guidance services. Therefore, empirical investigation is needed to understand the relationships between these services and students' social competencies.

Previous studies have investigated social guidance services using various approaches. Studies [7, 8] examined sociodrama as a group guidance strategy for improving students' social skills. Research [9] emphasized the importance of guidance and counseling services in supporting personal and social development. Meanwhile, study [10] investigated social modeling techniques that encourage students to observe, imitate, and internalize empathetic behavior. These approaches provide opportunities to improve social awareness, understand others' feelings, and strengthen interpersonal relationships [11].

However, previous studies have primarily examined individual guidance techniques, including sociodrama, group guidance, and social modeling, rather than the broader relationships among social guidance services, empathy, and interpersonal skills [7, 11]. Furthermore, limited attention has been given to these relationships within Muhammadiyah schools, where moral character, social responsibility, and Islamic educational values are emphasized. Although existing studies have contributed to understanding students' socio-emotional development [12, 13], a research gap remains concerning the simultaneous examination of empathy, interpersonal skills, and social guidance services within a values-based secondary education setting.

The novelty of this study lies in its integrated quantitative examination of these three variables within the specific educational context of SMA Muhammadiyah 2 Medan. Unlike studies emphasizing individual intervention techniques, this research investigates their statistical relationships within existing school guidance practices. Accordingly, this study aimed to examine the relationships between empathy, interpersonal skills, and social guidance services among students at SMA Muhammadiyah 2 Medan. The findings are expected to provide empirical insights for strengthening school guidance programs and supporting students' socio-emotional development.

2. Materials and Methods

This study employed a quantitative correlational approach to examine the relationships among empathy, interpersonal skills, and social guidance services at SMA Muhammadiyah 2 Medan. The research was grounded in theories of social guidance, empathy development, and social learning. Social guidance services support students' social adjustment, self-understanding, and adaptive behavior [14, 15]. Empathy involves cognitive and affective abilities to understand

and respond to others' emotions [16, 17], while interpersonal skills encompass communication, cooperation, assertiveness, and conflict resolution. These competencies may develop through observation, modeling, reinforcement, and structured social interactions [14].

2.1. Research Design.

A quantitative correlational design was employed to examine the statistical relationships between empathy, interpersonal skills, and social guidance services. Empathy (X_1) and interpersonal skills (X_2) were designated as independent variables, while social guidance services (Y) represented the dependent variable. This design enabled the assessment of relationships among the variables using questionnaire data and regression analysis.

2.2. Research Procedure.

The research was conducted through several systematic stages. First, questionnaires were developed based on theoretical indicators of social guidance services, empathy, and interpersonal skills. The instruments subsequently underwent validity and reliability testing. Research permission was obtained from the school, followed by coordination with guidance and counseling teachers regarding data collection. Questionnaires were then administered to 120 selected students after explaining the research objectives, procedures, and confidentiality measures.

2.3. Participants and Sampling.

The study involved 120 students from grades 10, 11, and 12 at SMA Muhammadiyah 2 Medan. Participants were selected using proportional random sampling to represent students across the three grade levels. This approach was intended to reduce sampling bias and capture differences in students' social experiences and interpersonal interactions.

2.4. Research Instruments and Conceptual Framework.

Data were collected using a structured questionnaire with a four-point Likert scale. The social guidance services instrument assessed planning, implementation, materials, methods, and evaluation. Empathy was measured through indicators of emotional understanding, social sensitivity, and appropriate emotional responses. Interpersonal skills were assessed through effective communication, cooperation, and constructive conflict resolution. Content validity was evaluated through expert judgment involving a guidance and counseling lecturer. Empirical validity and internal consistency were assessed using item correlations and Cronbach's alpha coefficients, respectively. Figure 1 presents the conceptual framework, identifying empathy (X_1) and interpersonal skills (X_2) as predictors of social guidance services (Y). The framework was developed to examine the direction and statistical significance of the relationships among these variables. Two hypotheses were formulated: H_1 proposed a positive relationship between empathy and social guidance services, while H_2 proposed a negative relationship between interpersonal skills and social guidance services. These hypotheses were examined through regression analysis.

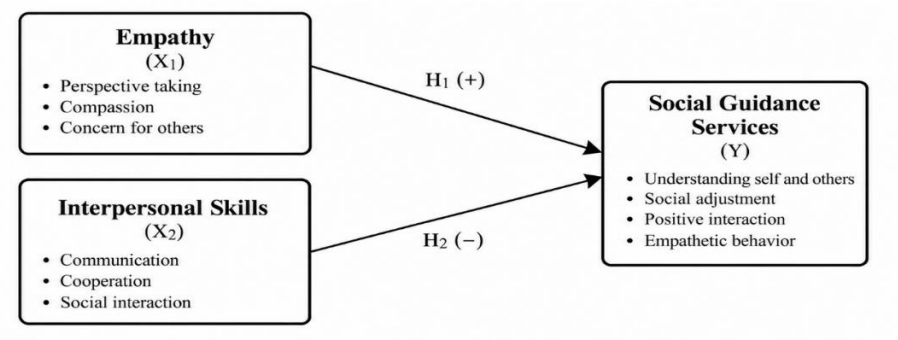


Figure 1. Conceptual Framework.

2.5. Data Analysis.

Data were analyzed using SPSS version 26. Descriptive statistics were used to summarize questionnaire responses. The Kolmogorov–Smirnov test was applied to assess normality, with $p > 0.05$ indicating no statistically significant departure from normality. Linearity was examined using the deviation-from-linearity test, where $p > 0.05$ indicated no significant deviation from a linear relationship. Multiple linear regression was performed to examine the associations between empathy, interpersonal skills, and social guidance services. Statistical significance was determined at $p < 0.05$. The coefficient of determination (R^2) was calculated to assess the proportion of variance in social guidance services explained collectively by empathy and interpersonal skills.

3. Results and Discussion

3.1. Normality Test.

The normality test was conducted to determine whether the regression residuals followed an approximately normal distribution, which is an important assumption for statistical inference in linear regression analysis. The Kolmogorov–Smirnov test was performed using SPSS version 26, with a significance threshold of 0.05. A significance value greater than 0.05 indicated that the null hypothesis of normality could not be rejected. Evaluating this assumption was necessary to determine whether the subsequent regression analysis could be interpreted using conventional parametric statistical procedures (Table 1).

Table 1. One-Sample Kolmogorov–Smirnov Normality Test Results.

Parameter	Statistic	Unstandardized Residual
N	Number of observations	120
Normal parameters	Mean	0.0000000
	Standard deviation	1.07937268
Most extreme differences	Absolute	0.130
	Positive	0.094
	Negative	−0.130
Kolmogorov–Smirnov test	Test statistic	0.130
	Asymp. Sig. (2-tailed)	0.033

As presented in Table 1, the Kolmogorov–Smirnov test produced an asymptotic significance value of 0.333, which exceeded the predetermined threshold of 0.05. This finding indicated that the test did not detect a statistically significant departure from normality. Therefore, the residual distribution was considered acceptable for proceeding with regression

analysis. However, a nonsignificant normality test does not establish that the residuals are perfectly normally distributed. The normality assessment provided preliminary support for the statistical assumptions underlying the regression model. Nevertheless, normality alone was insufficient to establish model adequacy because other assumptions, including linearity, independence of errors, homoscedasticity, and multicollinearity, also required consideration. Consequently, the normality findings should be interpreted alongside the subsequent diagnostic tests rather than as independent evidence of model validity.

3.2. Linearity Test.

The linearity test was performed to examine whether the relationship between interpersonal skills and social guidance services could be adequately represented using a linear model. This assessment was important because multiple linear regression assumes that the expected value of the dependent variable is linearly related to the predictors. The analysis used an ANOVA-based linearity test in SPSS version 26, with particular attention to the significance of the deviation-from-linearity component. A significance value greater than 0.05 indicated that the test did not identify a statistically significant departure from linearity (Table 2).

Table 2. Linearity Test Between Interpersonal Skills and Social Guidance Services.

Source	Sum of squares	df	Mean square	F	Sig.
Between groups (combined)	4.403	3	1.468	1.226	0.304
Linearity	4.247	1	4.247	3.547	0.062
Deviation from linearity	0.156	2	0.078	0.065	0.937
Within groups	138.897	116	1.197	—	—
Total	143.300	119	—	—	—

As shown in Table 2, the deviation-from-linearity significance value was 0.937, exceeding the 0.05 threshold. This result suggested that the relationship between interpersonal skills and social guidance services did not exhibit statistically detectable nonlinearity. However, the linearity component produced a significance value of 0.062, indicating that the unadjusted linear association was not statistically significant at the 5% level. These findings suggested that a linear representation was not contradicted by the available test results, although evidence of a statistically significant unadjusted linear relationship remained limited. The findings should also be distinguished from the multiple regression results, which assessed interpersonal skills while controlling for empathy. Furthermore, the linearity test presented in Table 2 examined only interpersonal skills; the corresponding relationship between empathy and social guidance services should also be evaluated.

3.3. Multiple Linear Regression Analysis.

Multiple linear regression analysis was conducted to examine the associations between empathy, interpersonal skills, and social guidance services among students at SMA Muhammadiyah 2 Medan. Empathy and interpersonal skills were included as independent variables, while social guidance services represented the dependent variable. This analytical approach enabled the assessment of each predictor's association with social guidance services while statistically controlling for the other predictor. The regression coefficients indicated the direction and magnitude of these associations, while significance values were used to evaluate the statistical evidence (Table 3).

Table 3. Multiple Linear Regression Coefficients.

Variable	Unstandardized coefficient (B)	Significance (p)
Constant	2.916	—
Empathy	0.052	0.015
Interpersonal skills	−0.155	0.005

Note: The values are based on the reported manuscript results and require verification against the original SPSS coefficients table.

As presented in Table 3, empathy showed a statistically significant positive association with social guidance services (B = 0.052, p = 0.015). This finding indicated that higher empathy scores were associated with higher social guidance services scores after controlling for interpersonal skills. Specifically, a one-unit increase in empathy corresponded to an estimated increase of 0.052 units in the dependent variable, assuming other factors in the model remained constant. In contrast, interpersonal skills showed a statistically significant negative association (B = −0.155, p = 0.005). This finding suggested that higher interpersonal skills scores were associated with lower social guidance services scores after controlling for empathy. The negative association was unexpected and required further examination, particularly regarding questionnaire coding, the operational definition of social guidance services, and possible relationships between the predictors. These results demonstrated statistically significant associations but did not establish causal effects.

3.4. Coefficient of Determination.

The coefficient of determination was examined to evaluate the explanatory capacity of the regression model involving empathy and interpersonal skills as predictors of social guidance services. The coefficient of determination (R^2) represents the proportion of observed variance in the dependent variable explained collectively by the independent variables. In addition, the adjusted R^2 accounts for the number of predictors and sample size, providing a more conservative estimate of model explanatory performance (Table 4).

Table 4. Model Summary and Coefficient Of Determination.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.342	0.117	0.120*	3.615*

Predictors: Empathy and interpersonal skills. Dependent variable: Social guidance services. The adjusted R^2 and standard error values require verification against the original SPSS output.

As presented in Table 4, the multiple correlation coefficient (R) was 0.342, while the coefficient of determination (R^2) was 0.117. These results indicated that empathy and interpersonal skills collectively explained approximately 11.7% of the observed variance in social guidance services. The remaining 88.3% represented unexplained variance, which could reflect other relevant factors, measurement error, and individual differences not captured by the model. The reported adjusted R^2 of 0.120 was inconsistent with the R^2 value of 0.117. For a sample of 120 participants and two predictors, the corresponding adjusted R^2 would be approximately 0.102. Therefore, the original model summary should be reviewed before interpreting the adjusted coefficient. Overall, the reported R^2 suggested limited explanatory capacity, indicating that empathy and interpersonal skills alone did not account for most of the variation in social guidance services.

3.5. Discussion.

The findings revealed that empathy and interpersonal skills were significantly associated with social guidance services among students at SMA Muhammadiyah 2 Medan, although their relationships differed in direction. Empathy demonstrated a significant positive association (B = 0.052, p = 0.015), suggesting that students with stronger emotional understanding and social sensitivity tended to report higher social guidance services scores. This finding was consistent with previous research emphasizing the importance of empathy in strengthening social relationships and supporting guidance activities [5, 11]. Furthermore, empathy has been recognized as an essential component of interpersonal understanding and prosocial behavior [12, 17]. These findings suggested that empathy should be considered when developing school guidance programs that promote students' socio-emotional competencies.

In contrast, interpersonal skills demonstrated a significant negative association with social guidance services (B = −0.155, p = 0.005). This finding differed from previous studies highlighting the positive contribution of guidance and counseling programs to students' social skills and interpersonal development [2, 9, 14]. One possible explanation is that students with stronger interpersonal competencies may perceive less need for social guidance services. However, this interpretation remains speculative because students' perceived guidance needs were not directly examined. Differences in questionnaire scoring, overlapping constructs, and individual characteristics may also contribute to this unexpected relationship. Therefore, further investigation is required to clarify the negative association.

The regression model explained approximately 11.7% of the variance in social guidance services ($R^2 = 0.117$), indicating that empathy and interpersonal skills accounted for a relatively limited proportion of the observed variation. Other factors, including school climate, peer relationships, family support, and guidance program implementation, may also be relevant. Previous research has emphasized the importance of structured guidance programs, social modeling, and character education in supporting students' social development [7, 10, 13, 15]. These findings suggest that social guidance services should be examined within a broader educational and social context rather than exclusively through individual socio-emotional characteristics.

Overall, this study contributed empirical evidence regarding the relationships among empathy, interpersonal skills, and social guidance services within a Muhammadiyah secondary school. Nevertheless, the correlational design, single-school sample, and departure from residual normality (p = 0.033) limited the strength of statistical inference and broader generalizability. Further research should examine additional explanatory variables, assess regression assumptions, and incorporate longitudinal or intervention-based designs to better understand the relationships among these constructs.

4. Conclusions

This study examined the relationships between empathy, interpersonal skills, and social guidance services among students at SMA Muhammadiyah 2 Medan. The findings indicated that empathy was positively associated with social guidance services (B = 0.052, p = 0.015), whereas interpersonal skills demonstrated a significant negative association (B = −0.155, p = 0.005). These contrasting relationships highlighted the complexity of students' socio-emotional characteristics in relation to school guidance services. The regression model explained 11.7%

of the variance in social guidance services ($R^2 = 0.117$), suggesting that additional individual, social, and institutional factors may contribute to the observed variation. However, the Kolmogorov–Smirnov test indicated a significant departure from residual normality ($p = 0.033$), requiring caution when interpreting the regression significance tests. The findings emphasized the importance of considering empathy and interpersonal competencies when developing school guidance programs. Nevertheless, the negative association involving interpersonal skills requires further investigation. Future studies should incorporate additional explanatory variables, examine students' perceptions of guidance services, and employ broader samples and longitudinal designs. Overall, this study provided preliminary empirical insights into the relationships among socio-emotional competencies and social guidance services within a values-based secondary education environment.

Authors Contributions

Both authors contributed equally to the study's conceptualization, methodology, data collection, analysis, interpretation, manuscript preparation, and revision. Both authors reviewed and approved the final manuscript and agreed to be accountable for its content.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to participant confidentiality and ethical considerations.

Competing Interests

The authors declare that they have no financial, personal, or professional competing interests that could have influenced the research or its findings.

Statement on the Use of Artificial Intelligence

Artificial intelligence (AI) tools were used to assist with grammar correction, language editing, and improving manuscript clarity. The authors reviewed and verified the final content and take full responsibility for the accuracy, originality, and integrity of the manuscript.

References

[1] Sa'adah, P.; Wibowo, G.W.N.; Kusumodestoni, R.H. (2024). Analisis kegunaan aplikasi GoPay berdasarkan metode System Usability Scale. *Jurnal Minfo Polgan*, *13*, 533–542.

[2] Zaman, S.G.; Widiastuti, H.T. (2024). Pengaruh layanan bimbingan kelompok dalam meningkatkan kemampuan interaksi sosial siswa. *Ghaidan: Jurnal Bimbingan Konseling Islam dan Kemasyarakatan*, *8*, 43–52.

[3] Raida, A.M.; Salsabilla, S.; Mansoer, F.K.; Patrianti, T. (2024). Peran manajemen public relations PT. AirAsia Indonesia Tbk. dalam mempertahankan citra perusahaan. *Innovative: Journal of Social Science Research*, *4*, 7865–7878.

[4] Wardhani, P.S.N.; Alawiyah, T. (2024). Penanaman nilai-nilai karakter kepada generasi muda untuk mencegah perundungan. *Ducare: Journal of Education and Learning*, *1*, 59–74.

[5] Rayaginansih, S.F.; SM, S.N.; Cahyati, S.; Dartina, V. (2023). The effectiveness of group guidance service through techniques games to increase student empathy. *Journal of Education and Counseling*, *3*, 47–55. https://doi.org/10.32627/jeco.v3i2.780.

[6] Ahmad, R.R.M.R.; Diniaty, A.; Habibah, S.; Purnama, D.B.; Efendi, Y. (2024). Overview of guidance and counseling teachers' compassion fatigue and its correlation with empathy in individual counseling service. *BICC Proceedings*, *2*, 1–8.
[7] Nawawi, E. (2025). Implementasi sosiodrama dalam layanan bimbingan kelompok untuk mengembangkan keterampilan sosial siswa. *Jurnal Konseling dan Psikologi Indonesia*, *1*, 230–239.
[8] Iqlima, F.N.; Budimann, N.; Yustiana, Y.R.; Suryana, D. (2026). The development of empathy skills for guidance and counseling teacher candidates. *Educatione*, 188–200.
[9] Afrizawati, A.; Zahrani, N. (2025). The influence of counseling guidance on students' social skills at SMK Hang Nadim Batam. *Psychopolytan: Jurnal Psikologi*, *8*, 47–54.
[10] Sartika, D.; Asyah, N.; Syaimi, K.U.; Dewi, I.S. (2025). Pengaruh layanan bimbingan kelompok teknik social modeling terhadap pengembangan empati siswa SMA Negeri 1 Deli Tua tahun ajaran 2024/2025. *All Fields of Science Journal Liaison Academia and Sosiety*, *5*, 546–557.
[11] Buchori, S.; Fakhri, N.; Fakhri, R.A. (2023). Interpersonal communication in guidance and counseling: The role of teachers' empathy, self-esteem, and intrapersonal peacefulness. *Journal of Educational Science and Technology*, *9*, 235–245.
[12] Moudatsou, M.; Stavropoulou, A.; Philalithis, A.; Koukouli, S. (2020). The role of empathy in health and social care professionals. *Healthcare*, *8*, 26. https://doi.org/10.3390/healthcare8010026.
[13] Sudiyono, L.; Karmini, N.W. (2020). Character education through social guidance for students.
[14] Rahmadhea, S. (2024). Pengembangan program bimbingan untuk meningkatkan keterampilan sosial siswa. *JBK: Jurnal Bimbingan Konseling*, *2*, 46–53.
[15] Khalilah, E. (2017). Layanan bimbingan dan konseling pribadi sosial dalam meningkatkan keterampilan hubungan sosial siswa. *JIGC (Journal of Islamic Guidance and Counseling)*, *1*, 41–57.
[16] Rangkuti, M.N.K.; Nurhasyifa, N.; Nurhaida, N.; Nasution, P.N.; Wahyuni, S. (2025). Peranan bimbingan konseling dalam perkembangan sosial peserta didik di sekolah Desa Timbang Lawan. *PEMA*, *5*, 183–194.
[17] Diswantika, N.; Kartadinata, S.; Supriatna, M. (2022). Kajian empati budaya dalam perspektif filsafiah dan ilmiah. *Jurnal Mahasiswa BK An-Nur: Berbeda, Bermakna, Mulia*, *8*, 57–73.

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