

The Relationship Between Depression, Loneliness, and Suicide Ideation on Adolescents and Young Adults: A Cross-sectional Study

Volume 6 No 2, Page 251-258

©The Author(s) 2026



Wiwik Widiyawati*¹, Yuni Asri²

¹ Nursing Professional Program, Faculty of Health, Universitas Muhammadiyah Gresik, Indonesia

² Nursing Department, Faculty of Health Science, Institute of Technology Science and Health, Dr. Soepraoen Kesdam V/Brawijaya Hospital, Malang, Indonesia

Article Info:

Received: 13 February, 2026

Revised: 12 April, 2026

Accepted: 13 April, 2026

Correspondence Author:

Wiwik Widiyawati,
Universitas Muhammadiyah
Gresik, 61121
Email:

wiwikwidiyawati@umg.ac.id

How to Cite:

Widiyawati W, Asri Y. The Relationship Between Depression, Loneliness, and Suicide Ideation on Adolescent and Young Adult: A Cross-Sectional Study. An Idea Health Journal. 2026; 6(2):251-258.
<https://doi.org/10.53690/ihj.v6i01.658>



This is Work Licensed by:
<https://creativecommons.org/licenses/by/4.0/>

Abstract

Background: Depression and loneliness are prevalent among adolescents and young adults and are associated with an increased risk of suicidal ideation. This study examined the relationship between these variables using a cross-sectional, quantitative design.

Methods: The study population comprised 462 individuals, from which 215 respondents were selected through simple random sampling. Depression was measured using the Depression Anxiety Stress Scales (DASS-42), loneliness was assessed with the University of California, Los Angeles (UCLA) Loneliness Scale Version 3, and suicidal ideation was identified using the MINI Plus 5.0.0. Data analysis was conducted using Spearman's rank-order correlation test.

Result: The analysis demonstrated a statistically significant positive correlation between depression and suicidal ideation, reflecting a weak to moderate association. In contrast, loneliness did not show a significant correlation with suicidal ideation.

Conclusion: Depression was significantly associated with suicidal ideation among adolescents and young adults, whereas loneliness was not. These findings underscore the importance of early identification and management of depressive symptoms in suicide prevention strategies for this population.

Keywords: Depression, Loneliness, Suicidal ideation

BACKGROUND

Early adulthood, typically defined as the age range of 16 to 24, is a critical developmental stage in the human life course. During this period, individuals experience substantial psychological, social, and role-related transitions that require increasing levels of adjustment and adaptive functioning. This stage is commonly characterized by ongoing identity consolidation, expanding social responsibilities, and the development of greater emotional regulation and interpersonal stability. However, these developmental processes do not occur uniformly across individuals, as they are shaped by a range of contextual, interpersonal, and psychological factors that may either facilitate or hinder successful adaptation during the transition to adulthood (1–3). Early adulthood represents a critical developmental period characterized by substantial psychosocial transitions, including changes in social roles, academic and career demands, and increasingly complex interpersonal relationships (1,2). These transitions often require individuals to adapt to new environments and expectations, which may increase vulnerability to emotional distress. Among adolescents and young adults, depression has emerged as one of the most prevalent mental health concerns and is frequently associated with psychosocial difficulties, including loneliness (2,4,5).

Loneliness is defined as a subjective psychological state in which individuals perceive a discrepancy between desired and actual social relationships, resulting in feelings of social disconnection and lack of meaningful belonging (6–8). Unlike objective social isolation, loneliness reflects an individual's internal emotional experience and may occur even in the presence of frequent social interactions (6,9). Previous studies have demonstrated that loneliness is closely associated with adverse mental health outcomes, including depression, anxiety, and reduced psychological well-being (3,8,10). During adolescence and early adulthood, loneliness may arise from challenges in identity development, difficulties in establishing intimate and meaningful relationships, and transitions in social support systems, including changes in family and peer relationships (1,3,8). These developmental and social challenges may increase susceptibility to psychological distress, particularly when individuals lack adequate coping mechanisms or social support. Among adolescents, loneliness can stem from identity crises, difficulties in forming deep and meaningful social bonds, as well as shifts in relationships with family members and peer groups (3,8).

According to the World Health Organization (WHO) and global health estimates (2019), approximately 280 million people worldwide live with depression (4,5). This figure underscores depression as one of the most prevalent mental health conditions globally. In regional comparisons across Asia, prevalence data show variability between subregions. In Northern Asia, around 19.93% of the population experiences symptoms of depression and anxiety. In Southeast Asia, prevalence ranges from 15 to 20%, except in Vietnam, where it has been reported to reach 31%. In Eastern Asia, approximately 12.8% of individuals report depression and anxiety, while in Southern Asia, the prevalence estimates reach around 20%. According to Indonesia's Basic Health Research (Riskesdas) 2018, the prevalence of depression among individuals aged 15–24 years was reported to be approximately 6.2% (4,11).

In early adulthood, people face internal and external stressors. These include academic challenges, family conflict, and social pressure. Such stressors can cause psychological distress and helplessness (12,13). Without support or adaptive coping, young people may withdraw socially and become lonelier (6,13). Loneliness can then worsen or trigger depression, with symptoms like emptiness, loss of interest, and worthlessness (10,14). As depression worsens, thoughts of suicide may arise as a way to escape suffering (12,14,15).

From a preventive perspective, improving mental health literacy among adolescents is essential to enable early recognition of symptoms of depression and loneliness. Strengthening social support systems, including family relationships, peer networks, and school and community supports, is equally

important to ensure that adolescents feel emotionally connected and supported (3,12). Peer counseling initiatives and psychosocial interventions in educational settings can function as an effective first line of support. At the clinical level, accessible and youth-friendly mental health services, including psychological and psychiatric care without stigma, are critically needed. Furthermore, government policies and mental health institutions should expand access to teleconsultation services and crisis hotlines, such as the LISA Suicide Prevention Helpline in Indonesia, to provide immediate support for adolescents experiencing suicidal crises. Through the systematic and integrated implementation of these strategies, the negative impact of depression and loneliness on suicidal ideation among adolescents and young adults may be reduced (15–17). Ultimately, these efforts are expected to support a healthier psychological transition into adulthood and to improve overall mental well-being during this critical developmental stage.

Research suggests both depression and loneliness are linked to suicidal ideation, but how strong these relationships are is unclear. Some studies show loneliness affects suicidal ideation indirectly through depression. Others find that loneliness alone is not a strong predictor when other factors are considered (18–21). These mixed findings mean more research is needed, especially for adolescents and young adults in specific contexts. This study aims to examine the relationship between depression, loneliness, and suicidal ideation among young people using a cross-sectional approach.

METHODS

Study Design

This study used a quantitative with cross-sectional design with 215 respondents.

Sample/Participants

a sample of adolescents and young adults (n=462). From this population, 215 respondents were selected through simple random sampling. Inclusion criteria comprised individuals aged 17–24 years who were actively registered during the study period, willing to participate, able to understand and complete the questionnaire independently, and who provided informed consent. Exclusion criteria included incomplete questionnaires, intensive psychiatric treatment during data collection, or withdrawal from participation at any stage.

Instruments

Data were collected using standardized psychological instruments: the Depression Anxiety Stress Scales (DASS-42) depression subscale (Cronbach's alpha \approx 0.91), the UCLA Loneliness Scale Version 3 (Cronbach's alpha \approx 0.89–0.94), and the Mini International Neuropsychiatric Interview (MINI Plus 5.0.0) for suicidal ideation. These instruments have demonstrated strong psychometric properties in previous research. Data collection was conducted via self-administered questionnaires after a comprehensive explanation of the study and informed consent. Depression and loneliness served as independent variables, while suicidal ideation was the dependent variable.

Data Analysis

The Spearman rank correlation test was employed for data analysis, as the study variables were measured using ordinal-scale instruments and the data were not normally distributed, making a nonparametric test more suitable than Pearson's correlation. Statistical analyses were performed using SPSS version 25.

Ethical Consideration

Ethical approval was obtained from the Health Research Ethics Committee of Universitas Muhammadiyah Gresik (approval number 005/KET/II. 3. UMG/KEP/A/2024).

RESULT AND DISCUSSION

Table 1. Frequency of Respondents' Characteristics

Respondents' Characteristics	Category	n (215)	% (100)
Gender	Male	127	59
	Female	88	41
Age	18-19	62	29
	20-21	100	46
	22-23	52	24
	24-25	1	1

Table 2. Variable Univariate

Variables	n (215)	% (100)
Depression		
Normal	81	38
Low	22	10
Moderate	33	15
Severe	39	18
Very Severe	40	19
Loneliness		
Low	114	52.3
Severe	60	27.5
High	44	20.2

Based on the table above, most respondents were categorized as having low levels of loneliness, totaling 114 individuals (52.3%). Meanwhile, 60 respondents (27.5%) were classified as experiencing moderate loneliness, and 44 respondents (20.2%) were categorized as having high loneliness.

Table 3. Relationship Between Depression and Suicide Ideation

Correlation Coefficient(r)	p-value
0.376	0.01
1	0.1

Note: Spearman's Rank-Test; p-value (0,01)

Based on the results of the Spearman's rank correlation test, the correlation coefficient (r) was 0.376 with a p-value of 0.01 ($p < 0.05$). These findings indicate a statistically significant relationship between depression and suicidal ideation. A correlation coefficient of 0.376 suggests that the strength of the association falls within the weak-to-moderate range and is positive, meaning that higher scores on the independent variable tend to be accompanied by higher scores on the dependent variable.

The results of the Spearman's rank correlation test showed a correlation coefficient (r) of 0.10 with a p-value of 0.10 ($p > 0.05$). This indicates that there is no statistically significant relationship between loneliness and suicidal ideation. A correlation coefficient of 0.10 indicates a very weak, positive association between the two variables. However, the relationship is not statistically significant; therefore, no meaningful association between the two variables can be concluded.

DISCUSSION

The Relationship Between Depression and Suicidal Ideation

The Spearman's rank correlation analysis produced a correlation coefficient of 0.376 with a p-value of 0.01 ($p < 0.05$), indicating a statistically significant association between depression and suicidal ideation. This coefficient reflects a weak-to-moderate positive relationship. While the correlation is not strong, its statistical significance suggests the association is consistent and unlikely to be attributable to chance.

These findings demonstrate that higher levels of depression are associated with increased suicidal ideation (14,15,22). Even weak or moderate correlations can be clinically significant, particularly when related to safety concerns such as suicidal ideation (14). Depression is recognized as a primary risk factor, with symptoms including hopelessness, diminished self-worth, and pervasive negativity (14,15), all of which may contribute to suicidal thoughts as a perceived means of escape (15). Research involving students and adolescents further indicates that depression is strongly correlated with severe suicidal ideation (2).

Beck's cognitive theory provides a framework for understanding this relationship: the cognitive triad of depression, comprising negative views of the self, the world, and the future, can promote suicidal ideation through the mechanism of hopelessness (23). Suicidal thoughts frequently arise as maladaptive responses to psychological distress. Empirical evidence indicates that hopelessness mediates the association between depression and suicidal ideation (14). The interpersonal-psychological theory further posits that perceived burdensomeness and social disconnection, both prevalent in depression, contribute to elevated suicidal risk (15,24).

Clinically, the significant association between depression and suicidal ideation has important implications. Although the relationship is weak to moderate in strength, suicidal ideation remains a major concern, as it is among the strongest predictors of suicide attempts (16,25). Consequently, individuals exhibiting depressive symptoms, even at mild or moderate levels, require timely psychological assessment and intervention to reduce risk escalation. The literature emphasizes that the relationship between depression and suicidal ideation is multifactorial (15). Depression interacts with various contributing factors, including psychosocial stressors, limited social support, traumatic experiences, and biological or personality-related vulnerabilities (12,13). This complexity may account for the moderate correlation observed, which remains statistically significant. Therefore, prevention efforts should extend beyond alleviating depressive symptoms to include strengthening protective factors, such as enhancing social support and promoting adaptive coping skills, to mitigate overall risk (13).

The Relationship Between Loneliness and Suicidal Ideation

The Spearman's rank correlation test produced a correlation coefficient of 0.10 ($p > 0.05$), indicating no statistically significant relationship between loneliness and suicidal ideation in this sample. Statistically, a p-value greater than 0.05 suggests that the observed association is likely due to chance and does not provide sufficient evidence to support a meaningful link between loneliness and suicidal ideation in this population.

Loneliness, characterized by insufficient social contact or poor-quality relationships (6,8), is a risk factor for mental health problems, including suicidal ideation, particularly when combined with perceived burdensomeness or diminished sense of belonging (18,20). However, this association is complex. Large-scale studies indicate that loneliness alone does not directly predict suicidal ideation when depression or social support are accounted for (18,20), suggesting that other psychological conditions may mediate this relationship.

The very weak correlation observed underscores the multifactorial nature of suicidal ideation (15). While loneliness may represent a risk factor, its impact is frequently influenced by co-occurring conditions such as depression, anxiety, stress, or inadequate social support (13,26). As a result, loneliness alone did not demonstrate statistical significance, highlighting the importance of mediating variables such as depression (15,26).

The findings of this study reveal a very weak and non-significant relationship between loneliness and suicidal ideation, indicating that loneliness is not a sole determinant of suicidal ideation in this population. A comprehensive assessment of other psychological factors is necessary. Loneliness may influence mental health through individuals' emotional responses and the robustness of their social networks (3,10). which may account for variability in observed correlations across studies.

CONCLUSION

This study found a significant positive relationship between depression and suicidal ideation among adolescents and young adults, indicating that higher depression levels increase the likelihood of suicidal ideation. Loneliness, however, showed only a very weak, non-significant positive association. Thus, loneliness may not independently predict suicidal ideation but could interact with factors like depression. Prevention efforts should prioritize depression management, while reinforcing social support and coping strategies to reduce suicidal ideation risk.

ACKNOWLEDGEMENTS

We express our sincere gratitude to all individuals and institutions who contributed to the completion of this research. We especially appreciate the participants for their valuable cooperation and the affiliated institution for providing essential support and facilities throughout the research process.

AUTHOR'S CONTRIBUTION STATEMENT

WW: Conceptualization, Methodology, Writing Original Draft, Review, Validation
YA: Analysis, Writing, Review

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this article.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors acknowledge the use of ChatGPT to support language improvement.

FUNDING

This research received no external funding.

REFERENCES

1. Arnett JJ. Emerging adulthood. A theory of development from the late teens through the twenties. *Am Psychol.* 2000;55(5):469–80. PMID:10842426
2. Thapar A, Collishaw S, Pine DS, Thapar AK. Depression in adolescence. *Lancet (London, England).* 2012;379(9820):1056–67. doi:10.1016/S0140-6736(11)60871-4 PMID:22305766
3. Loades ME, Chatburn E, Higson-Sweeney N, Reynolds S, Shafran R, Brigden A, et al. Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. *J Am Acad Child Adolesc Psychiatry.* 2020;59(11):1218-1239.e3. doi:10.1016/j.jaac.2020.05.009 PMID:32504808

4. World Health Organization. WHO. 2025 [cited 2026 Apr 11]. Depressive disorder (depression). Available from: <https://www.who.int/news-room/fact-sheets/detail/depression>
5. World Health Organization. WHO. 2025 [cited 2026 Apr 11]. Suicide worldwide in 2021: global health estimates. Available from: <https://www.who.int/publications/i/item/9789240110069>
6. Hawkley LC, Cacioppo JT. Loneliness matters: a theoretical and empirical review of consequences and mechanisms. *Ann Behav Med a Publ Soc Behav Med.* 2010;40(2):218–27. doi:10.1007/s12160-010-9210-8 PMID:20652462
7. Russell DW. UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. *J Pers Assess.* 1996;66(1):20–40. doi:10.1207/s15327752jpa6601_2 PMID:8576833
8. Heinrich LM, Gullone E. The clinical significance of loneliness: a literature review. *Clin Psychol Rev.* 2006;26(6):695–718. doi:10.1016/j.cpr.2006.04.002 PMID:16952717
9. Cacioppo JT, Hawkley LC. Perceived social isolation and cognition. *Trends Cogn Sci.* 2009;13(10):447–54. doi:10.1016/j.tics.2009.06.005 PMID:19726219
10. Lim MH, Rodebaugh TL, Zyphur MJ, Gleeson JFM. Loneliness over time: The crucial role of social anxiety. *J Abnorm Psychol.* 2016;125(5):620–30. doi:10.1037/abn0000162 PMID:27124713
11. World Health Organization. WHO. 2025 [cited 2026 Apr 11]. Mental health of adolescents. Available from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
12. Liu RT, Miller I. Life events and suicidal ideation and behavior: a systematic review. *Clin Psychol Rev.* 2014;34(3):181–92. doi:10.1016/j.cpr.2014.01.006 PMID:24534642
13. Wang J, Lloyd-Evans B, Giacco D, Forsyth R, Nebo C, Mann F, et al. Social isolation in mental health: a conceptual and methodological review. *Soc Psychiatry Psychiatr Epidemiol.* 2017;52(12):1451–61. doi:10.1007/s00127-017-1446-1 PMID:29080941
14. Ribeiro JD, Huang X, Fox KR, Franklin JC. Depression and hopelessness as risk factors for suicide ideation, attempts, and death: meta-analysis of longitudinal studies. *Br J Psychiatry.* 2018;212(5):279–86. doi:10.1192/bjp.2018.27 PMID:29587888
15. O'Connor RC, Nock MK. The psychology of suicidal behaviour. *The Lancet Psychiatry.* 2014;1(1):73–85. doi:10.1016/S2215-0366(14)70222-6 PMID:26360404
16. Mars B, Heron J, Klonsky ED, Moran P, O'Connor RC, Tilling K, et al. Predictors of future suicide attempt among adolescents with suicidal thoughts or non-suicidal self-harm: a population-based birth cohort study. *The Lancet Psychiatry.* 2019;6(4):327–37. doi:10.1016/S2215-0366(19)30030-6 PMID:30879972
17. Glenn CR, Kleiman EM, Kellerman J, Pollak O, Cha CB, Esposito EC, et al. Annual Research Review: A meta-analytic review of worldwide suicide rates in adolescents. *J Child Psychol Psychiatry.* 2020;61(3):294–308. doi:10.1111/jcpp.13106 PMID:31373003
18. McClelland H, Evans JJ, Nowland R, Ferguson E, O'Connor RC. Loneliness as a predictor of suicidal ideation and behaviour: a systematic review and meta-analysis of prospective studies. *J Affect Disord.* 2020;274:880–96. doi:10.1016/j.jad.2020.05.004 PMID:32664029
19. Stickley A, Koyanagi A. Loneliness, common mental disorders and suicidal behavior: Findings from a general population survey. *J Affect Disord.* 2016;197:81–7. doi:10.1016/j.jad.2016.02.054 PMID:26971125
20. Calati R, Ferrari C, Brittner M, Oasi O, Olié E, Carvalho AF, et al. Suicidal thoughts and behaviors and social isolation: A narrative review of the literature. *J Affect Disord.* 2019;245:653–67. doi:10.1016/j.jad.2018.11.022 PMID:30445391
21. Bearman PS, Moody J. Suicide and friendships among American adolescents. *Am J Public Health.* 2004;94(1):89–95. doi:10.2105/ajph.94.1.89 PMID:14713704

22. Khishe R, Sardarzehi R, Doosalivand H, Fayazmanesh H, Bastami M. The Emergence of Suicidal Ideation: Testing the Three-Step Theory in Iranian Adolescents. *Iran J Psychiatry*. 2025;20(4):474–81. doi:10.18502/ijps.v20i4.19684 PMID:41427091
23. Beck AT, Steer RA, Brown G. *Manual for the Beck Depression Inventory-II* [Internet]. San Antonio: TX: Psychological Corporation.; 1996. Available from: <https://www.nctsn.org/measures/beck-depression-inventory-second-edition>
24. Joiner T. *Why People Die by Suicide* [Internet]. Harvard University Press. Harvard University Press, 2007. Available from: <https://www.hup.harvard.edu/books/9780674025493>
25. Nock MK, Borges G, Bromet EJ, Alonso J, Angermeyer M, Beautrais A, et al. Cross-national prevalence and risk factors for suicidal ideation, plans, and attempts. *Br J Psychiatry*. 2008;192(2):98–105. doi:10.1192/bjp.bp.107.040113 PMID:18245022
26. Griffin SC, Blakey SM, Brant TR, Eshera YM, Calhoun PS. Disentangling the Longitudinal Relationship between Loneliness and Depressive Symptoms in U.S. Adults Over 50. *Clin Gerontol*. 2024;47(2):257–69. doi:10.1080/07317115.2022.2147115 PMID:36401538