

INTERVENTIONS TO REDUCE THE DEVELOPMENT OF SUICIDAL IDEATION IN STUDENTS

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ABSTRACT

This study aims to map interventions that can reduce the development of suicidal ideation in college students. The method used is a scoping review using PRISMA 2020 in study selection and a literature search strategy using the PCC format. The databases used are EBSCO, PubMed, and Garuda. Article quality is assessed using JBI critical appraisal tools. The research results are interventions to reduce the development of suicidal ideation in students: Cognitive Therapy, Collaborative Assessment and Management of Suicidality (CAMS), Dialectical Behavior Therapy (DBT) individually and in groups, and campaigns for social norms. In conclusion, it is essential to maintain psychological health to prevent it from developing into a suicide attempt, which individuals and the environment must be aware of. Appropriate intervention can affect the development of these suicidal ideations.

Keywords: Suicide Idea, Intervention, Students

INTRODUCTION

Suicide has become a familiar act in society. Globally, suicide is the cause of death of 1.4% of the population worldwide and is ranked 18th as the most common cause. The highest number of deaths due to suicide is in Europe and Southeast Asia, and as many as 79% are found in countries with low to middle-income index (WHO, 2019). Indonesia is an example of a quiet and middle-income country that contributes to the death rate due to suicide. Therefore, Indonesia is in 6th place with the highest suicide rate in Asia.

The term "suicide" or suicide is taken from Latin, namely, Sui (self) then Caedere (to kill). Suicide is an individual's action that causes death by taking his own life, often due to depression or other mental illness. Suicide is closely related to mental health problems. Desperate individuals will assume that by ending their lives, all of the issues they face will end (Adinda & Prastuti, 2021).

Before committing suicide there are at least three stages to committing suicide. These stages are the creation of the idea of committing suicide, the location of planning to commit suicide, and the setting of committing suicide (Kothgassner et al., 2021). Triggers for the emergence of suicidal ideas include psychological factors such as depression (Farooq et al., 2021). The next stage is attempting suicide, namely self-harm behavior aimed at death with explicit actions but not fatal activities and not causing death. Then, in the end, the individual decides to commit suicide, with the final result being death.

According to The Three-Step Theory (3ST) of Suicide, there are three stages in the development of suicidal ideation towards the attempted suicide stage, namely the development stage until the emergence of the idea of committing suicide, which originates from unbearable physical and psychological pain which gives rise to the idea of committing suicide. Suicide was the first thought that occurred to me. Next is the stage of solid ideas vs. moderate views, closely related to social support from those closest to you. When suicidal thoughts and signs are visible and expressed, strong social support from those around you will make the suicidal ideation passive. In contrast, if the social support received is fragile, it will develop into active suicidal ideation. Next, the final stage of development of suicidal ideation is the stage of development of the idea of making a suicide attempt (Zhu et al., 2022). After the stage of development of suicidal ideation has passed and the individual's suicidal ideation continues to develop, the next step is that the individual will attempt suicide (Karisma & Fridari, 2021). Therefore, action is needed so that someone with thoughts about suicidal ideation does not develop and make the suicidal ideation that arises passive.

Many things can influence a person's attempt to commit suicide, including age (Seo et al., 2021). Suicide is often found in the adolescent to adult age range, with the highest number of deaths in the productive age group, namely 20 to 24 years, 25 to 29 years, and 30 to 34 years (WHO, 2019). In line with research which explains that suicidal ideation is found more frequently in the age range of 18 to 25 years (Basu et al., 2022).

During the Covid pandemic, symptoms of depression and anxiety tended to increase and had a greater incentive to commit suicide in students aged 18 to 24 (Debowska et al., 2020). Students are generally in the age range of approximately 17 to 25 years, and this is the productive age range, which, according to WHO, is often found to be the perpetrator of suicide. Students are a group that is vulnerable to cases and incidents of suicide because suicide is the leading cause of death among students (CDC, 2021). Many factors cause suicide among students, especially those related to psychological and social factors that cause individuals to consider committing suicide. These factors include symptoms of depression, hopelessness, and alcohol problems related to social support (Seo et al., 2021).

Appropriate interventions and evidence-based practices related to preventing the development of suicidal ideation triggered by stress and depression in students so that it does not develop to the stage of suicidal behavior need to be known so that the suicidal ideation becomes passive suicidal ideation. Based on research that has been carried out before, no research has discussed a collection of interventions that can be carried out on students. Several studies have been conducted, including talking about students' psychological responses related to anxiety and thoughts of suicide during the COVID-19 pandemic (Pramukti et al., 2020). Other research discusses the relationship between stress levels and suicide in students (Lalenoh et al., 2021).

RESEARCH METHODS

The method in this research is a literature review with a scoping review approach. Research Strategy: The literature search used in this scoping review used three databases, namely EBSCO, PubMed, and Garuda. Keywords in this scoping review were adjusted to Medical Subject Heading (MeSH) and identified using the PCC Grid for Search Strategy: College student OR Student OR Colleger OR Scholar AND

Suicidal Ideation OR Suicidal Thought AND Intervention OR Management OR Treatment. Keywords in Indonesian are suicidal ideation, intervention, and student.

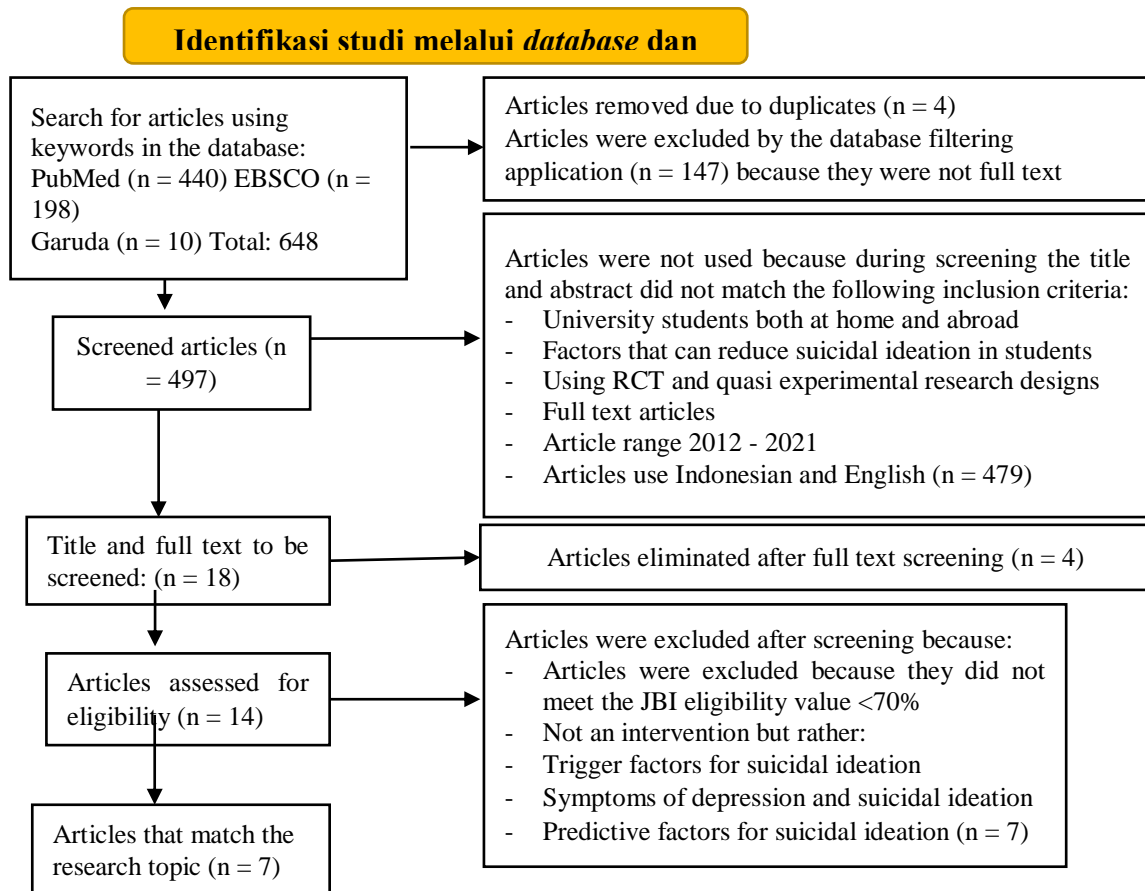


Chart. 1
Study Selection Using PRISMA 2020

Inclusion and Exclusion Criteria: Inclusion criteria are students in tertiary institutions, both domestic and foreign universities, articles with interventions that can reduce suicidal ideation that appears in students, research articles with RCT (Randomised Control Trial) and Quasi-Experimental research designs, range year of publication of the article, namely 2012 – 2021 (10 years), full-text article, and article with the language used in the article, namely English and Indonesian. Exclusion criteria are elementary/middle/high school or primary/secondary/junior college school students, workers, or people who do not have student status, causal factors, impact on the perpetrator or the family of the perpetrator of suicide, incomplete articles that contain abstract only, and languages other than Indonesian and English.

Article Quality Assessment: using the Joanna Briggs Institute (JBI) critical appraisal tools with article standards having a minimum assessment of 70%. After a search using keywords created in the databases, namely PubMed, EBSCO, and Garuda, 648 research articles were found with themes according to the keywords entered. Next, the researchers filtered to obtain full-text articles in all databases so that 501 full-text articles and 147 articles that were not full-text were screened out of all the databases used. The researcher then downloaded all the articles, entered them into the Mendeley application to filter for duplication, and found four duplicate articles. Of the 648 articles after screening, 497

remained, which the researchers screened according to the inclusion criteria. So, the remaining articles are 18 articles.

Next, the full-text filtering of the articles was carried out so that 14 articles remained, which were then identified and assessed using the JBI critical appraisal tools to find seven articles that met the research criteria. The final results of the article screening found seven research articles relevant to this scoping review's aim. Article quality assessment uses the JBI critical appraisal tools, with standard reports having a minimum evaluation of 70%.

RESEARCH RESULT

Table. 1
Article Analysis Results

Author's Name, Article Title, Type of Literature	Year	Aims	Findings
Mariyati & Hamidah, <i>Group Cognitive Therapy for Suicide Prevention Berbasis Internet Untuk Mengurangi Ide Bunuh Diri Pada Mahasiswa., Randomised controlled experimental study</i>	2021	Testing the effectiveness of internet-based Cognitive Therapy for Suicide Prevention (CT-SP) with a group approach and reducing suicidal ideation in students	Internet-based CT-SP intervention with a group approach can reduce suicidal ideation in students
Pistorello et al., <i>A Randomized Controlled Trial of the Collaborative Assessment and Management of Suicidality (CAMS) Versus Treatment as Usual (TAU) for Suicidal College Students. Randomised controlled experimental study</i>	2021	Comparing Collaborative Assessment and Management of Suicidality (CAMS) and Treatment as Usual (TAU) for suicidal students in feasibility testing	CAMS had a significant positive impact on students with depression and suicidal ideation when measured weekly during treatment with reduced hopelessness among students with lower BPD (borderline personality disorder), no history of suicide attempts, and older age . Meanwhile, TAU is better for students who experience BPD and a history of several suicide attempts
Pistorello et al., <i>Dialectical Behavior Therapy (DBT) Applied to College Students: A Randomized Clinical Trial, Randomised controlled experimental study</i>	2012	Comparing the effectiveness of Dialectical Behavior Therapy (DBT) for students who have suicidal ideation with treatment as usual (TAU)	The provision of Dialectical Behavior Therapy provided a more significant positive impact on reducing suicidal ideation, depression, the number of NSSI incidents (if participants self-injure), BPD criteria, and the use of psychotropic drugs and significantly greater improvements in social adjustment.

Lin et al., <i>The Effectiveness of Dialectical Behavior Therapy Skills Training Group Vs. Cognitive Therapy Group on Reducing Depression and Suicide Attempts for Borderline Personality Disorder in Taiwan, Randomised controlled experimental study</i>	2019	Comparing the effectiveness of the Dialectical Behavior Therapy Skills Training Group (DBTSTG) with the Cognitive Therapy Group (CTG) in reducing depression and suicide attempts and modifying emotional regulation strategies in students who experience borderline personality disorder (BPD)	Providing Dialectical Behavior Therapy Skills Training Group (DBTSTG) and Cognitive Therapy Group (CTG) interventions has a significant effect on reducing depression and suicide attempts in students who experience BPD. However, the CTG intervention group showed cognitive improvements and the DBTSTG group showed increased self-acceptance and decreased stress
Pistorello et al., <i>Developing Adaptive Treatment Strategies to Address Suicidal Risk in College Students: A Pilot Sequential, Multiple Assignment, Randomized Trial (SMART), Randomised controlled experimental study</i>	2018	Utilizing adaptive treatment strategies to reduce the risk of moderate to severe suicide among college students	Treatment dropout rates are lower, dropouts are rare, and counselors are able to provide a suicide-focused approach with compliance by respondents. Treatment satisfaction is high among clients and moderately high among counselors.
Wu & Adamsk, <i>Intervention effect of cognitive behaviour therapy under suicidology on psychological stress and emotional depression of college students, Randomised controlled experimental study</i>	2021	Analyzing the therapeutic effects of cognitive behavioral therapy on psychological stress, depression, and other negative emotions in college students with suicidal ideation	Psychological stress, depression, interpersonal sensitivity, anxiety and psychosis are risk factors for students to have suicidal ideas. Cognitive behavioral therapy can effectively reduce negative emotions such as psychological stress, emotional depression, and anxiety in students with suicidal ideation. Then the level of student suicidal ideation can be reduced.
Silk et al., <i>Evaluation of a Social Norms Approach to a Suicide Prevention Campaign, quasi experiment</i>	2017	Evaluating a campus social norms campaign that uses peer and celebrity resources to promote help-seeking among college students as a suicide prevention strategy	Compared with students in the control environment condition, students exposed to campaign messages in the experimental environment condition were more likely to refer friends to the university counseling center and more likely to visit the university counseling center for mental health problems

From the analysis of seven articles discussing interventions to reduce suicidal ideation in students, it was found that all interventions given to research participants were effective in reducing suicidal ideation in students. The interventions that can reduce suicidal ideation in students, according to the articles that have been analyzed, are cognitive therapy in the form of Cognitive Behavioral Therapy, Cognitive Therapy Group (CTG), internet-based Group Cognitive Therapy for Suicide Prevention (internet-based CTG), Collaborative Assessment and Management of Suicidality (CAMS), Dialectical Behavior Therapy (DBT), Dialectical Behavior Therapy Skills Training Group (DBTSTG), and Social Norms.

Cognitive therapy can be implemented in various forms, for example, direct meetings through individual, group, or internet-based approaches via the Zoom application and website. Collaborative Assessment and Management of Suicidality (CAMS) is a therapeutic approach with a multi-goal approach, treatment planning, tracking, and a clinical outcomes tool called a suicidal status form that engages patients in an interactive assessment process. Patients can be actively involved in developing their treatment plans. CAMS can focus on controlling controllable factors that trigger suicide. Dialectical Behavior Therapy (DBT) is a therapy that can assist someone to manage negative emotions and conflict in relationships. DBT training is related to the ability to accept and change one's behavior, which can be done using group or individual methods. Social support from other people can influence the development of a person's suicidal ideation.

DISCUSSION

Cognitive therapy (cognitive therapy) with various media. Mental Behavioral Therapy Suicide Prevention (CBT-SP) was previously developed to reduce the risk of attempting suicide. It was later developed into Cognitive therapy for suicidal prevention (CT-SP), aimed more specifically at individuals who would commit suicide (Yu et al., 2022). As done by Mariyati & Hamidah (2021); Lin et al., (2019); Wu & Adamsk (2021), namely teaching cognitive and behavioral skills so that suicidal ideation can be reduced and the risk of suicide can be prevented. The intervention provided is in the form of psychosocial intervention with the target of gaining skills to analyze and modify cognitive processes related to suicide and modifying risk factors for suicide.

The topics taught are recognizing the relationship between thoughts and feelings, guided relaxation imagery, introducing the cognitive theory of depression and suicide, identifying automatic thoughts, monitoring and identifying automatic thoughts, replacing dysfunctional thoughts with rational thoughts, identifying beliefs, applying the downward arrow technique, objective analysis, and learning to manage acute crises and prevent recurrence regarding suicide attempts which have been studied both individually and in groups. Mariyati & Hamidah's (2021) research was conducted on an Internet basis using a group approach using the Zoom application and a website that had been created. The therapy carried out has the same goal. It is effective in reducing suicidal ideation and increasing cognitive skills in students by holding several meetings, but it only differs in the media used.

The second type of intervention is CAMS, or Collaborative Assessment and Management of Suicidality, which is an intervention that can be used to treat and prevent the development of suicidal ideation in students. The focus in delivering CAMS interventions is on a therapeutic approach with a multi-goal approach, care planning, tracking, and a clinical outcomes tool called a suicidal status form. The CAMS intervention engages patients in an interactive assessment process, and patients are actively involved in developing their treatment plans. The research of Pistorello et al., (2018); Pistorello et al., (2021) showed that CAMS therapy reduced the development of suicidal ideation in students. CAMS had a significant positive impact on students with depression and suicidal ideation when measured weekly during treatment, with reduced hopelessness among students with lower BPD (borderline personality disorder), no history of suicide attempts, and older age. Meanwhile, TAU is better for students who experience BPD and a history of several suicide attempts.

DBT provides a form of teaching in the form of four abilities to accept and change one's behavior. The first ability is that patients are taught mindfulness practices, which focus on understanding and taking thoughts, feelings, actions, and body sensations in the present without having to manipulate or control them. Second, patients are taught to tolerate

difficulties to learn how to overcome crises and accept the situation. Third, patients learn about emotional regulation skills, which aim to develop skills in managing emotions in patients so that patients can understand how emotions should not be controlled by themselves. Finally, there are lessons about personal effectiveness with the result that patients can communicate what they need and want and how to resolve interpersonal conflicts while respecting themselves and others (Lin et al., 2019).

Providing Dialectical Behavior Therapy Skills Training Group (DBTSTG) and Cognitive Therapy Group (CTG) interventions significantly reduce depression and suicide attempts in students who experience BPD. However, the CTG intervention group showed cognitive improvements, and the DBTSTG group showed increased self-acceptance and decreased stress. Social support is one of the factors that creates suicidal ideation in a person (Du et al., 2021). The need to increase social norms in individuals to care more about their surroundings can help reduce suicidal ideation in students.

In the process of preparing this scoping review, there are advantages and limitations to this research. The advantage is that this research can provide information about what types of interventions can be used with students who have suicidal ideas so that they do not progress to attempting suicide or committing suicide. The weakness of this research is that it only explains the type of intervention but does not explain which intervention is most effective. In addition, more article searches need to be carried out, but researchers have limitations in accessing several databases.

CONCLUSION

Four types of interventions can be used to reduce the development of suicidal ideation in students have been mapped in this research, namely Collaborative Assessment and Management of Suicidality (CAMS), dialectical therapy in the form of Dialectical Behavior Therapy (DBT) and Dialectical Behavior Therapy Skills Training Group (DBTSTG), social norm campaigns and cognitive therapy in the form of internet-based Cognitive Behavioral Therapy, Cognitive Therapy Group (CTG) and Group Cognitive Therapy for Suicide Prevention (internet-based CTG). This intervention has been proven to reduce the development of suicidal ideation in students.

SUGGESTION

In future research, researchers can conduct a systematic review regarding which interventions are most effective in reducing the development of suicidal ideation in students and add references and databases used in searching for articles so that interventions to facilitate the development of suicidal ideation can be more varied.

BIBLIOGRAPHY

- Adinda, S. T., & Prastuti, E. (2021). Regulasi Emosi dan Dukungan Sosial : Sebagai Prediktor Ide Bunuh Diri Mahasiswa. *An-Nafs*, 6(1), 135–151. <https://doi.org/10.33367/psi.v6i1.1520>
- Basu, A., Boland, A., Witt, K., & Robinson, J. (2022). Suicidal Behaviour, Including Ideation and Self-Harm, in Young Migrants: A Systematic Review. *International Journal of Environmental Research and Public Health*, 19(14), 8329. <https://doi.org/10.3390/ijerph19148329>
- CDC. (2021). Preventing Suicide. *United States Department of Health and Human Services*
- Debowska, A., Horeczy, B., Boduszek, D., & Dolinski, D. (2020). A Repeated Cross-Sectional Survey Assessing University Students' Stress, Depression, Anxiety, and

- Suicidality In The Early Stages of the COVID-19 Pandemic in Poland. *Psychological Medicine*, 1–4. <https://doi.org/10.1017/S003329172000392X>
- Du, L., Shi, H. Y., Qian, Y., Jin, X. H., Li, Y., Yu, H. R., Liu, X. M., Fu, X. L., & Chen, H. L. (2021). Association between Social Support and Suicidal Ideation in Patients with Cancer: A Systematic Review and Meta-Analysis. *European Journal of Cancer Care*, 30(2), 1–11. <https://doi.org/10.1111/ecc.13382>
- Farooq, S., Tunmore, J., Ali, M. W., & Ayub, M. (2021). Suicide, Self Harm and Suicidal Ideation During COVID-19: A Systematic Review. *Psychiatry Research*, 306, 114228. <https://doi.org/10.1016/j.psychres.2021.114228>
- Karisma, N. W. P. C., & Fridari, I. G. A. D. (2021). Gambaran Pengembangan Ide Bunuh Diri Menuju Upaya Bunuh Diri. *Psikobuletin: Buletin Ilmiah Psikologi*, 2(1), 1-6. <https://doi.org/10.24014/pib.v2i1.9904>
- Kothgassner, O. D., Goreis, A., Robinson, K., Huscsava, M. M., Schmahl, C., & Plener, P. L. (2021). Efficacy of Dialectical Behavior Therapy for Adolescent Self-Harm and Suicidal Ideation: A Systematic Review and Meta-Analysis. *Psychological Medicine*, 51(7), 1057–1067. <https://doi.org/10.1017/S0033291721001355>
- Lalenoh, G. A., Zega, I. B. P. N., Yuni, I. F., Florensa, M. V. A., & Ningsih, M. T. A. S. (2021). Hubungan Tingkat Stres dengan Ide Bunuh Diri pada Mahasiswa. *Nursing Current*, 9(1), 89–101. <https://doi.org/http://dx.doi.org/10.19166/nc.v9i1.3466>
- Lin, T. J., Ko, H. C., Wu, J. Y. W., Oei, T. P., Lane, H. Y., & Chen, C. H. (2019). The Effectiveness of Dialectical Behavior Therapy Skills Training Group vs. Cognitive Therapy Group on Reducing Depression and Suicide Attempts for Borderline Personality Disorder in Taiwan. *Archives of Suicide Research*, 23(1), 82–99. <https://doi.org/10.1080/13811118.2018.1436104>
- Mariyati, P., & Hamidah, H. (2021). Group Cognitive Therapy for Suicide Prevention Berbasis Internet untuk Mengurangi Ide Bunuh Diri pada Mahasiswa. *Jurnal Diversita*, 7(2), 201–210. <https://doi.org/10.31289/diversita.v7i2.4752>
- Pistorello, J., Jobes, D. A., Compton, S. N., Locey, N. S., Walloch, J. C., Gallop, R., Au, J. S., Noose, S. K., Young, M., Johnson, J., Dickens, Y., Chatham, P., Jeffcoat, T., Dalto, G., & Goswami, S. (2018). Developing Adaptive Treatment Strategies to Address Suicidal Risk in College Students: A Pilot Sequential, Multiple Assignment, Randomized Trial (SMART). *Archives of Suicide Research*, 22(4), 644–664. <https://doi.org/10.1080/13811118.2017.1392915>
- Pistorello, J., Jobes, D. A., Gallop, R., Compton, S. N., Locey, N. S., Au, J. S., Noose, S. K., Walloch, J. C., Johnson, J., Young, M., Dickens, Y., Chatham, P., & Jeffcoat, T. (2021). A Randomized Controlled Trial of the Collaborative Assessment and Management of Suicidality (CAMS) Versus Treatment as Usual (TAU) for Suicidal College Students. *Archives of Suicide Research*, 25(4), 765–789. <https://doi.org/10.1080/13811118.2020.1749742>
- Pramukti, I., Strong, C., Sitthimongkol, Y., Setiawan, A., Pandin, M. G. R., Yen, C. F., Lin, C. Y., Griffiths, M. D., & Ko, N. Y. (2020). Anxiety and Suicidal Thoughts During the COVID-19 Pandemic: Cross-Country Comparative Study among Indonesian, Taiwanese, and Thai University Students. *Journal of Medical Internet Research*, 22(12). <https://doi.org/10.2196/24487>
- Seo, C., Di Carlo, C., Dong, S. X., Fournier, K., & Haykal, K. A. (2021). Risk Factors for Suicidal Ideation and Suicide Attempt Among Medical Students: A Meta-Analysis. *PLoS ONE*, 16(12 December), 1–15. <https://doi.org/10.1371/journal.pone.0261785>

- WHO. (2019). *Tiap Detik Ada Satu Orang Tewas Bunuh Diri di Dunia*. <https://www.cnnindonesia.com/gaya-hidup/20190910023019-255-428942/who-tiap-detik-ada-satu-orang-tewas-bunuh-diri-di-dunia>
- Wu, S., & Adamsk, K. (2021). Intervention Effect of Cognitive Behaviour Therapy Under Suicidology on Psychological Stress and Emotional Depression of College Students. *Work (Reading, Mass.)*, 69(2), 697–709. <https://doi.org/10.3233/WOR-213510>
- Yu, T., Hu, D., Teng, F., Mao, J., Xu, K., Han, Y., Liu, Y., & Wu, M. (2022). Effectiveness of Internet-Based Cognitive Behavioral Therapy for Suicide: A Systematic Review and Meta-Analysis of RCTs. *Psychology, Health and Medicine*, 27(10), 2186–2203. <https://doi.org/10.1080/13548506.2021.1930073>
- Zhu, Y., Li, Y., & Xu, X. (2022). Suicidal Ideation and Suicide Attempts in Psychiatric Patients During the Covid-19: A Systematic Review and Meta Analysis. *Psychiatry Research*, 317, 114837. <https://doi.org/10.1016/j.psychres.2022.114837>