

Effectiveness of Counselling on Mental Health and Academic Achievement of Jakarta Adolescents: A Quasi-Experimental Study

Efektivitas Konseling terhadap Kesehatan Mental dan Prestasi Akademik Remaja Jakarta: Studi Kuasi-Eksperimental

Daffa Arkananta Putra Yanni^{1*}

¹Universitas YARSI, Jakarta, Indonesia

*Correspondence:

E-Mail/ Phone Number: daffal197@gmail.com/ 081311325646

Address: Menara Yarsi, Jl. Letjen Suprpto No. Kav.13, Jakarta 10510, Indonesia

ABSTRACT

Adolescence is a vulnerable period characterized by rapid change and increased mental health challenges, which can have a significant impact on academic performance. In Jakarta, this problem is exacerbated by academic pressures and urban environmental stress. This study aimed to determine the relationship between mental health and academic achievement among adolescents in Jakarta. This study used a quantitative quasi-experimental design with a pre-and posttest approach without a control group, involving 14 purposively selected 8th and 9th-grade students at MTs Umdatur Rasikien, East Jakarta. Mental health was measured using the SRQ-20 questionnaire before and after the counseling intervention. In contrast, academic achievement was measured based on the number of subjects with a grade of "C" or lower. Interventions in the form of individual and group counseling were conducted for two weeks. Post-intervention SRQ-20 scores decreased significantly ($t(13) = 4.67$; $p = 0.000$), indicating improved mental health. Eight out of 14 students showed an increase in academic performance, five had a decrease, and one was unchanged. Correlation analysis showed a very weak and insignificant negative relationship between post-intervention mental health scores and academic performance ($r = -0.121$; $p = 0.680$), as well as a very weak positive correlation between pre-test scores and academic performance ($r = 0.164$; $p = 0.576$). These results indicate that while counseling is effective in improving mental health, its impact on academic achievement is limited. Therefore, a more integrated school approach is needed to support academic development and psychological well-being simultaneously.

Keywords: Adolescence, academic achievement, mental health, public health

ABSTRAK

Masa remaja merupakan periode rentan yang ditandai dengan perubahan cepat dan meningkatnya tantangan kesehatan mental, yang dapat berdampak signifikan terhadap prestasi akademik. Di Jakarta, masalah ini diperparah oleh tekanan akademik dan stres lingkungan perkotaan. Penelitian ini bertujuan untuk mengetahui hubungan antara kesehatan mental dengan prestasi akademik pada remaja di Jakarta. Penelitian ini menggunakan desain kuantitatif kuasi-eksperimen dengan pendekatan pre-test dan post-test tanpa kelompok kontrol, melibatkan 14 siswa kelas 8 dan 9 yang dipilih secara purposif di MTs Umdatur Rasikien, Jakarta Timur. Kesehatan mental diukur menggunakan kuesioner SRQ-20 sebelum dan sesudah intervensi konseling, sedangkan prestasi akademik diukur berdasarkan jumlah mata pelajaran dengan nilai "C" atau lebih rendah. Intervensi berupa konseling individu dan kelompok dilakukan selama dua minggu. Analisis data menggunakan uji t berpasangan dan korelasi Pearson pada SPSS 25. Skor SRQ-20 pasca-intervensi menurun secara signifikan ($t(13) = 4,67$; $p = 0,000$), menunjukkan perbaikan kesehatan mental. Delapan dari 14 siswa menunjukkan peningkatan prestasi akademik, lima mengalami penurunan, dan satu tidak berubah. Analisis korelasi menunjukkan hubungan negatif yang sangat lemah dan tidak signifikan antara skor kesehatan mental pasca-intervensi dan prestasi akademik ($r = -0,121$; $p = 0,680$), serta korelasi positif yang sangat lemah antara skor pre-test dan prestasi akademik ($r = 0,164$; $p = 0,576$). Hasil ini mengindikasikan bahwa meskipun konseling efektif dalam meningkatkan kesehatan mental, dampaknya terhadap prestasi akademik masih terbatas. Oleh karena itu, dibutuhkan pendekatan sekolah yang lebih terintegrasi untuk mendukung perkembangan akademik dan kesejahteraan psikologis secara bersamaan.

Kata Kunci: Masa remaja, prestasi akademik, kesehatan mental, kesehatan masyarakat

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INTRODUCTION

Adolescence is a crucial stage of life, characterized by rapid physical, emotional, psychosocial, and cognitive development.¹ The World Health Organisation (WHO) defines "adolescence" as individuals aged 10 to 19 years and further divides it into three stages: early adolescence (10-15 years), middle adolescence (14-17 years), and late adolescence (16-19 years).²

During this time, academic achievement plays a critical role in shaping future opportunities and personal growth.³ However, mental health challenges among adolescents are increasingly recognized as a significant barrier to academic success.⁴ Mental health, in this context, is defined as not only the absence of illness but also an individual's ability to fulfill their potential, cope with stress, function effectively in daily life, and contribute meaningfully to society.⁵ According to the *Global Health Data Exchange*, by 2021, mental health disorders affect 14% of adolescents aged 10 to 14 years and 16% of adolescents aged 15 to 19 years. Moreover, conditions such as anxiety, depression, and Attention-Deficit/Hyperactivity Disorder (ADHD) collectively account for less than 6% of cases globally. Meanwhile, in Indonesia, mental health disorders affect 12% of adolescents aged 10 to 14 years and 13% of adolescents aged 15 to 19 years.⁶ Adolescents with mental health conditions are particularly vulnerable to social exclusion, discrimination, and stigma, which can inhibit their willingness to seek help. They are also at higher risk of educational challenges, risky behaviors, physical health problems, and human rights violations.⁷

In urban environments such as Jakarta, the pressure to achieve academically is further

compounded by social expectations, competitive school environments, and rapid urbanization, all of which contribute to a unique interaction between physical health, mental health, and academic outcomes.^{8,9} Academic pressure refers to the stress and emotional distress that students experience due to expectations and demands from school, family, and society throughout their educational journey.¹⁰ Several studies have found that this pressure is associated with future poor academic performance and behavioral problems in the family.^{8,11,12}

Adolescents are one of the most vulnerable groups to mental health challenges, as they face a variety of risk factors that can have a significant impact on their well-being. Given the importance of successful adaptation and learning in adolescent development, it is important to understand and address these factors in both research and practical interventions. Effective support for adolescents requires a holistic approach that integrates educational initiatives with social and psychological efforts to reduce the adverse impact of these risks.^{13,14}

While global studies have extensively explored the relationship between mental health issues such as anxiety, depression, stress, and academic achievement, research specifically focusing on adolescents in Jakarta is scarce, highlighting an important gap that needs to be filled. As the capital city of Indonesia, Jakarta represents a diversity of socioeconomic backgrounds and cultural dynamics that influence adolescents' behaviors and experiences. While several studies in Indonesia have explored adolescent mental health, few have specifically examined its direct and granular impact on educational outcomes. This gap points to the need for local research that examines the



specific mental health challenges faced by Jakarta adolescents and their impact on learning and academic achievement.

This study aims to fill this gap by investigating the relationship between mental health factors and academic achievement among Jakarta adolescents. It seeks to identify the most influential mental health determinants and provide a better understanding of their effects in the city's unique cultural and educational context. By examining these dynamics, this study aims to contribute to evidence-based strategies for mental health interventions that can improve academic outcomes.

The novelty of this research lies in its focus on Jakarta as a case study to explore the intersection between mental health and education. In contrast to previous studies that often generalize findings across broader populations, this study provides a local perspective by considering the unique socio-cultural and urban-specific stressors in Jakarta. In addition, this study emphasizes the importance of an integrative approach that combines mental health support with academic interventions to promote holistic adolescent development.

This study hypothesizes that improvements in mental health through counseling interventions will contribute to improved academic achievement in adolescents. In other words, the lower the level of psychological symptoms such as anxiety, depression, and stress, the better the student's academic achievement is expected to be. This hypothesis is based on the notion that better psychological well-being can support cognitive functioning and motivation to learn. Understanding this relationship will provide a basis for developing policies and programs that

support mental health while promoting academic success. By examining these relationships in the context of Jakarta, this study aims to empower educators, policymakers, and mental health professionals with relevant and applicable insights.

MATERIALS AND METHODS

This study used a quantitative quasi-experimental design with a pre-post test approach without a control group to explore the relationship between factors influencing mental health and academic achievement among 8th and 9th-grade students at MTs (Madrasah Tsanawiyah) Umdatur Rasikien, Cakung Barat, East Jakarta.^{15,16}

The study was conducted from November to December 2022, with purposively selected participants of 14 students who met the inclusion criteria. This limited sample size was determined based on a practical approach and the availability of the target population, who the school had identified as students experiencing mental health and academic problems. In addition, this study was exploratory and utilized a quasi-experimental pre-post test design without a control group, where a small sample size was still considered adequate to observe changes in scores within one intervention group. This selection was also supported by the one-group pretest-posttest design approach, which is commonly used to evaluate the initial impact of an intervention before a larger-scale study is conducted. Inclusion criteria included being enrolled in the specified class, being identified as having mental health problems by the school, and experiencing academic challenges related to these problems. Exclusion criteria included grade 7 students, students without mental health issues, or students who maintained strong academic



performance. The authors excluded grade 7 students as they may not have faced the same level of educational and mental health challenges as grade 8 and 9 students, making them less relevant to the research focus of examining the relationship between mental health and academic achievement at a more mature stage of adolescent development.

The independent variables in this study included mental health, encompassing internal factors (biological and psychological) and external factors (environmental and sociocultural). In contrast, the dependent variable was academic performance (Figure 1), as measured by report card grades below a "C." Data was collected using the *Self-Reporting Questionnaire* (SRQ-20), a 20-item tool to screen for mental health problems in the past 30 days. This questionnaire was administered before and after the counseling intervention and supplemented with secondary data from the school's counseling guidance records. For the identification of internal and external factors, the authors classified almost all questions in the SRQ-20 as internal factors, except questions 13 and 20, which relate to work issues and social or environmental interactions.

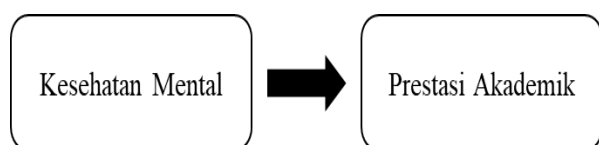


Figure 1: Independent and Dependent Variables

The study involved a structured preparation phase, coordination with school staff, and individual and group counseling sessions designed to provide support. Changes in SRQ-20 scores and academic performance were analyzed to evaluate the impact of the intervention on mental health and

its Correlation with academic outcomes. Data processing and analysis were conducted after data collection using Statistical Package for the Social Sciences (SPSS) version 25.0 with paired and Pearson's t-tests.

RESULTS

The questionnaire was distributed to students in grades 8 and 9. Upon completion, the authors carefully selected a sample based on the inclusion criteria and found 14 students to participate. After selecting the students, each participant received individual counseling through closed interviews. In the following one to two weeks, group counseling sessions were conducted in their respective classes. During these sessions, the students engaged in various activities, including expressing their current feelings, writing short reflections, and interacting with their peers. A week later, each student participated in a second one-on-one counseling session and completed the SRQ-20 posttest.

Based on the research conducted on factors affecting adolescent mental health and its impact on academic achievement among Grade 8 and 9 students at MTs Umdatur Rasikien, the results provide valuable insights into the interaction between mental health challenges and educational outcomes. Using data collected through the SRQ-20 questionnaire and counseling notes, this study identified internal and external factors that contribute to mental health problems.

The characteristics of the respondents are presented in Table 1. The majority of participants were from grade 8 (71.4%), with females making up 64.3% of the sample. Most students were under 15 years old (78.6%), and 71.4% had more than



five subjects with a report card grade of "C" or lower. The distribution of mental health disorders showed that *mood* problems and depression were the most common issues (92.86%), followed by suicidal thoughts (57.14%) and self-injurious behavior (42.86%). Suicidal thoughts decreased from 57.14% before the intervention to 14.29% after the intervention, indicating a positive effect of the counseling intervention.

Table 1. Respondents Characteristics

Characteristics	n	%
Class		
8	10	71.4
9	4	28.6
Gender		
Female	9	64.3
Male	5	35.7
Age		
<15 years	11	78.6
≥15 years old	3	21.4
Grade Report Card		
"C" in ≤4 subjects	4	28.6
"C" in >5 subjects	10	71.4
Distribution of Mental Health Disorders		
Anxiety	3	21.43
<i>Mood</i> and Depression	13	92.86
ADHD	2	14.28
Somatization	1	7.14
Self-Harm	6	42.86
Suicidal Thoughts (Pre)	8	57.14
Suicidal Thoughts (Post)	2	14.29

Source: Secondary Data, 2025

Based on the SRQ-20 pre-test and posttest scores (Table 2), the mean score decreased from 10.14 (SD = 3.52) to 5.43 (SD = 4.23), indicating an improvement in mental health after the counseling intervention. A *paired-sample t-test* ($t(13) = 4.67, p = 0.000$) showed that this difference

was statistically significant.

The distribution of mental health factors before and after the intervention is shown in Table 3. Internal factor scores decreased in 10 out of 14 participants after the counseling, while external factors largely remained the same or slightly improved in most students. This finding suggests that the counseling intervention was more effective in addressing internal psychological stressors than external environmental stressors.

Regarding academic achievement, Table 4 shows that 8 out of 14 participants (57%) experienced an increase, 5 participants (36%) experienced a decrease, and 1 participant experienced no change after counseling. The number of subjects with a grade of "C" or lower decreased in most of the students who experienced improved achievement.

The results of Pearson correlation analysis (Table 5) show that there is no significant relationship between SRQ-20 scores and academic performance. The Correlation between pre-test SRQ-20 scores and academic performance showed a very weak and insignificant positive relationship ($r = 0.164; p = 0.576$). Meanwhile, the Correlation between SRQ-20 posttest scores and academic achievement showed a very weak negative relationship and was also insignificant ($r = -0.121; p = 0.680$). On the other hand, there was a moderate and significant positive correlation between the SRQ-20 pre-test and posttest scores ($r = 0.541; p = 0.046$), indicating consistency between the scores before and after the intervention. This finding suggests that while the counseling intervention may improve mental health, its impact on academic performance has yet to show a statistically strong relationship.



Table 2. SRQ-20 Score Distribution

Respondents	Pre-test	Post-test	Difference in score	Mean (Std. Dev)
1.	8	9	1	4.71 (3.77)
2.	7	0	-7	
3.	6	0	-6	
4.	6	0	-6	
5.	14	10	-4	
6.	13	12	-1	
7.	19	8	-11	
8.	8	9	1	
9.	9	6	-3	
10.	11	0	-11	
11.	9	2	-7	
12.	12	6	-6	
13.	10	8	-2	
14.	10	6	-4	
Min	6	0		
Max	19	12		
Mean (Std. Dev)	10.14 (3.52)	5.43 (4.23)		
T-test	4.67			
p-value	.000			

Source: Primary Data, 2025

Table 3. Distribution of Mental Health Factors

Respondents	Pre-test		Posttest	
	Internal	External	Internal	External
1.	7	1	8	1
2.	7	0	0	0
3.	5	1	0	0
4.	5	1	0	0
5.	12	2	9	1
6.	12	1	6	1
7.	17	2	7	1
8.	7	1	7	2
9.	8	1	5	1
10.	9	2	0	0
11.	8	1	2	0
12.	11	1	4	2
13.	9	1	7	1
14.	9	1	5	1

Source: Primary Data, 2025



Table 4. Distribution of Academic Achievement

Respondents	Pre-counseling C grade	Post-counseling C grade	Category
1.	0	2	Worsened
2.	12	11	Improved
3.	7	7	Same
4.	9	8	Improved
5.	7	9	Worsening
6.	6	2	Improved
7.	9	4	Improved
8.	9	13	Worsening
9.	10	9	Improved
10.	15	17	Worsening
11.	3	2	Improved
12.	4	3	Improved
13.	3	5	Deteriorating
14.	7	5	Improving

Source: Secondary Data, 2025

Table 5. Correlation between Pre-test and Post-test on Academic Achievement in Adolescents

Correlation	Pre-test	Posttest	Academic Achievement
Pre-test	1.000	$r = .541^*$ $p = .046$	$r = .164$ $p = .576$
Post-test	$r = .541^*$ $p = .046$	1.000	$r = -.121$ $p = .680$
Academic Achievement	$r = .164$ $p = .576$	$r = -.121$ $p = .680$	1.000

*) Correlation significant at $p < 0.05$

Source: Primary Data, 2025

DISCUSSION

This study provides valuable insights into how mental health interventions can improve psychological well-being among adolescents, although the effect on academic achievement showed mixed results. The significant reduction in SRQ-20 scores suggests that school-based counseling interventions are effective in reducing psychological distress in students. This finding is in line with previous studies that emphasize the importance of addressing mental health issues in the school setting as an attempt to improve adolescent well-being. For example, Livheim et al. showed that adolescents who received an

Acceptance and Commitment Therapy (ACT) intervention experienced a significant decrease in depression and anxiety symptoms, as well as an increase in mindfulness skills, compared to a group receiving standard care.¹⁷ Similarly, a study by Pearce et al. found similar results through a facilitated school-based counseling intervention using the Strengths and Difficulties Questionnaire (SDQ), indicating that school-based interventions can be an effective approach in reducing psychological distress in adolescents.¹⁸

Despite improvements in mental health, the direct relationship with academic achievement was weak, suggesting that other factors may have a



stronger role. Correlation analysis showed that the relationship between mental health and academic outcomes before and after the intervention was not significant ($r = -0.121$; $p = 0.680$). This result is consistent with a study by Zhang et al., which found that mental health problems such as anxiety, depression, and stress levels were negatively correlated with academic performance, indicating that lower levels of mental health problems are associated with improved academic performance.¹⁹ Similar findings were reported by Grotnan et al., who found that 31% of respondents with symptoms of psychological distress were four times more likely to report low academic self-efficacy and academic achievement.²⁰ The study by Agnafors et al. also showed similar results, linking mental health problems in childhood and adolescence with reduced academic achievement.²¹ In other words, factors such as motivation, study habits, family support, and social peer relationships may have more influence on academic outcomes than psychological distress alone.

Although counseling interventions were found to be effective in reducing psychological symptoms, the absence of a significant correlation between improvements in mental health and academic performance suggests that academic factors may be influenced by more dimensions, such as motivation to learn, cognitive strategies, family support, and teaching quality. These findings imply that mental health interventions alone are not enough to improve overall academic performance. Therefore, interventions in the school setting should be developed in an integrated manner, combining psychological support with academic coaching and social engagement to maximize the impact on student achievement.

The variation in changes in academic performance after the intervention highlights the importance of mental health support and individualized learning. Although 57% of students showed an improvement in academic performance, 36% experienced a decline, suggesting that while counseling is effective at reducing psychological symptoms, additional academic interventions or social support systems may be needed to address learning challenges. Similar findings were observed in Agnafors et al.'s study, where improvements in mental health did not necessarily correlate with improved academic outcomes.²¹

The distribution patterns of mental health disorders suggest that *mood* problems and depression are a major concern among Jakarta adolescents. The high prevalence of mood problems and depression, followed by suicidal thoughts and self-harm, is in line with national and international findings. The result of decreased mental health scores in our intervention group parallels the results of Muthu et al.'s study in Coimbatore, India, which used a one-group pre-post quasi-experimental design and found a significant improvement in adolescents' mental health scores ($p < 0.001$).²² In addition, a study in Zahedan, Iran, which applied a similar design with a control group, reported that a combination of individual and group education and counseling significantly reduced mental health disorders ($p < 0.05$).²³ These findings support the effectiveness of counseling interventions in improving adolescent mental health in various school contexts. For suicidal thoughts, the more severe the mental health problem, the higher the risk of a suicide attempt.²⁴ This finding emphasizes the importance of schools providing easily accessible mental health services,



with counseling interventions shown to be effective in reducing mood disorders and suicidal thoughts in adolescents.

The distribution of mental health factors before and after the intervention showed the differential impact of counseling on internal and external stressors. Significant reductions in internal factors confirm the value of counseling in emotion regulation and stress management. In contrast, less consistent improvements in external factors suggest the need for more comprehensive community-based interventions. Improvements in internal factors after intervention have been examined by de Soet et al., who identified several reasons why clients do not achieve adequate outcomes or drop out of treatment, including a mismatch between client expectations of therapy and loss of hope when improvements do not occur.²⁵ These findings were reinforced by Lundkvist-Houndoumadi et al., who found that clients whose therapy needs were not met were more at risk of negative outcomes, including increased hopelessness, distrust and avoidance.²⁶ Meanwhile, the improvement of external factors post-intervention has been explored by Gee et al. who found that interventions involving family or community can strengthen external support systems and result in better mental health outcomes. Other studies have also shown that school-based interventions can improve adolescents' mental health by strengthening their support networks.²⁷ These findings demonstrate the importance of addressing both personal and environmental factors in adolescent mental health.

The decrease in suicidal thoughts after counseling further confirms the value of school-based mental health interventions in crisis

prevention. A study in Indonesia by Zulaikha and Febriyana reported that at-risk adolescents, such as those experiencing psychiatric problems and other stressors, have a six times higher chance of experiencing suicidal thoughts compared to their peers who are not at risk.²⁸ This situation can be addressed through comprehensive, timely, and evidence-based interventions.²⁹ Among children and adolescents, measures such as restricting access to lethal means, implementing school-based skills and awareness programs, and providing interventions in clinical and community settings are effective in preventing suicidal behaviour.³⁰ The substantial reduction in suicidal thoughts after intervention (from 57.14% to 14.29%) reflects findings from Walsh et al. and Wasserman et al, which highlight the effectiveness of evidence-based counseling programs in reducing acute mental health risks among adolescents.^{29,30}

Although these results are positive, the limitations of this study must be considered to interpret the findings accurately. The small sample size and purposive sampling strategy limit the generalizability of the results. In addition, the short duration of the intervention and reliance on self-reported data may introduce bias or fail to capture long-term effects. Future studies with larger samples, longitudinal designs, and the use of objective academic metrics are recommended to strengthen the existing evidence base.

CONCLUSIONS AND SUGGESTIONS

This study examined the relationship between mental health, as measured by SRQ-20 scores, and academic achievement in adolescents. The findings revealed a weak positive correlation between SRQ-



20 pre-test scores and academic achievement, suggesting that there was no clear relationship between levels of psychological distress before the intervention and students' academic achievement. After the intervention, the participants showed a significant improvement in mental health, with a decrease in SRQ-20 posttest scores. However, the Correlation between posttest mental health scores and academic achievement was weak, suggesting that although improvements in mental health were evident, their direct impact on academic outcomes was limited. These findings underline the importance of addressing mental health issues in adolescents but also highlight that other factors, such as motivation, study habits, and external pressures, play a role in academic success. The intervention demonstrates the potential of counseling in reducing psychological distress, but the results also suggest that mental health interventions alone may not be sufficient to improve academic achievement significantly. Therefore, schools need to implement an integrated approach that not only focuses on mental health but also develops academic ability, emotional resilience, and social support networks.

Based on the finding that improved mental health is not always accompanied by improved academic performance, further research is needed to understand this relationship in more depth. Longitudinal studies are recommended to observe the long-term effects of counseling interventions. In addition, the use of more objective academic measures, such as standardized test scores, will help assess impact more accurately. Future interventions should be tailored to the most dominant type of disorder, such as depression or stress, identified in this study. Research should also

evaluate the role of other factors, such as motivation to learn, family support, and school environment, that may influence academic performance. Given the importance of an integrated approach, the development of mental health programs integrated into the school curriculum needs to be further tested. Finally, the cultural context and locality, such as in Jakarta, should be considered as it may affect the effectiveness of the intervention.

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CONFLICT OF INTEREST

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

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