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EXPRESSIVE WRITING AS AN EMOTIONAL REGULATION STRATEGY TO REDUCE FUTURE ANXIETY IN ADOLESCENTS

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ABSTRACT

Adolescence is a crucial stage of development marked by complex physical, psychological, and social changes. One of the most common psychological issues faced by adolescents is future anxiety, which refers to feelings of fear, worry, and uncertainty about events that have not yet occurred. Academic pressure, career choices, and social expectations are often sources of ongoing anxiety. If not properly addressed, this anxiety can negatively impact mental health, academic performance, and overall quality of life. Expressive writing therapy is a non-pharmacological psychological intervention believed to be effective in helping individuals manage emotions and reduce anxiety levels. This study aimed to determine the effect of expressive writing therapy on reducing future anxiety among adolescents at SMA Al Azhar Batam in 2025. The research used a pre-experimental design with a one-group pretest-posttest approach. A total of 24 students were selected using purposive sampling and participated in two sessions of expressive writing therapy conducted over two consecutive days. The instrument used was the Future Anxiety Scale (FAS). Data were analyzed using the Wilcoxon Signed Ranks Test. All participants experienced a decrease in anxiety scores after the therapy. Statistical analysis showed a significant p-value ($p < 0.05$), indicating a significant difference between pretest and posttest scores. Expressive writing therapy was proven to have a significant effect in reducing future anxiety in adolescents. This intervention can serve as an alternative psychological approach that is practical, affordable, and applicable in efforts to improve adolescent mental health in school settings.

Keywords: Adolescents, Future Anxiety, Expressive Writing Therapy.

INTRODUCTION

According to the World Health Organization (WHO, 2021), adolescents are individuals between the ages of 13 and 18. This period is considered a critical transition from childhood to adulthood, marked by significant physical, psychological, and social changes. The WHO also emphasizes that adolescence is a stage of identity formation, during which individuals begin to develop critical thinking skills, envision their future, and form more complex social relationships (Sriwijaya, 2024).

Adolescence is an important transitional period in an individual's development from childhood to adulthood. During adolescence, teenagers experience significant physical, emotional, and social changes. Adolescents begin to build their identity, pursue life goals, and develop personal values that they believe in (Hurlock, 1981). However, this period also makes adolescents more vulnerable to environmental pressures and stress, especially anxiety that occurs before and during school exams (Purnamarini et al., 2020).

Improving the quality of human resources in Indonesia is highly dependent on education. Ki Hajar Dewantara defines education as a necessity that must be fulfilled during a person's growth and development from childhood to adulthood. The purpose of this requirement is for every human being to have their full human

childhood to adulthood. The purpose of this requirement is for every human being to have their full human potential and become members of society who are able to achieve the highest degree of security and happiness (Hakim & Rajan, 2025).

When faced with psychological pressure about the future, adolescents often experience confusion and uncertainty that can trigger anxiety. This can affect their mental health and quality of life if not handled properly. Although various approaches have been developed to help adolescents manage anxiety, interventions are still needed that are tailored to their personalities, easy to implement, and provide a space for expressing emotions in a safe and constructive manner (Akbar Handoko, 2020).

One form of psychological pressure that is increasingly common and challenging among teenagers today is anxiety about the future. This phenomenon is not just a momentary anxiety, but also a persistent condition caused by perceptions of threats or uncertainty about educational prospects, careers, and adult life in the midst of an era of disruption. Recent data shows an increase in anxiety about the future among students, triggered by intense competition, high academic demands, and the abundance of information about future global challenges. Although this anxiety does not always leave a "physical mark," it has a significant impact on the mental health and well-being of adolescents. Adolescents who experience anxiety about the future often experience symptoms such as excessive tension, withdrawal from social interactions, lack of confidence in decision-making, and sleep disturbances, which can ultimately hinder their potential development (Anggarawati & Fidiarohana, 2024).

The anxiety experienced by adolescents about the future is often not only temporary, but can also develop into chronic psychological problems if not treated properly immediately. Although this anxiety does not leave physical scars, its abstract nature and frequent association with long-term uncertainty can cause profound emotional effects such as insecurity, low self-esteem due to social comparison, social isolation due to withdrawal, and sleep disorders. Anxiety caused by uncertainty about the future risks disrupting adolescents' learning and social development, and can even affect their motivation, career decisions, and overall academic success (Fatimatuzzahro et al., 2023).

The pharmacological approach to treating anxiety in adolescents is generally done by administering antidepressants, especially from the Selective Serotonin Reuptake Inhibitors (SSRIs) class. Based on a meta-review by Boaden et al. (2020), fluoxetine has been proven effective in treating major depression in adolescents, while fluvoxamine and paroxetine have been found effective for anxiety disorders. In addition, fluoxetine and sertraline are also effective in treating obsessive-compulsive disorder. However, some types of antidepressants, such as venlafaxine and paroxetine, show an increased risk of suicidal thoughts or behaviors, especially in cases of depression, while sertraline is associated with a decreased risk. In terms of tolerability, most antidepressants show good tolerance, especially for anxiety disorders, although drugs such as imipramine, duloxetine, and venlafaxine have higher rates of side effects. However, these findings generally come from short-term studies, so they do not fully describe the long-term effects of antidepressant use in adolescents. Therefore, although pharmacological treatment has been proven effective, alternative interventions such as non-pharmacological therapies, including expressive writing therapy, are important to explore as safer approaches with fewer side effects. (Boaden et al., 2020).

In addition to pharmacological approaches, non-pharmacological interventions also play an important role in overcoming anxiety in adolescents, especially because this approach tends to be safer and has fewer side effects. One method that is increasingly being used is expressive writing therapy. This therapy is a form of psychological intervention that involves free writing about one's deepest thoughts and feelings, especially those related to traumatic experiences or stress. According to Pennebaker (1997), expressive writing therapy can help individuals process negative emotions, increase self-awareness, and reduce psychological burdens that are not expressed verbally. In adolescents experiencing certain types of stress, such as being victims of bullying or academic pressure, this therapy has been proven to help reduce anxiety symptoms and improve emotional regulation. In addition, this therapy can also be a form of adaptive coping in dealing with anxiety about the future. Research by Afni Yan Syah (2023) shows that the application of expressive writing therapy modules in high school students can have a significant effect in reducing anxiety in general. Therefore, expressive writing therapy is a potential alternative for treating adolescent anxiety holistically without the use of medication (Niman et al., 2021).

Expressive writing therapy is a type of psychological intervention that involves expressing one's deepest thoughts and feelings through writing, without adhering to rigid language structures or rules. This method was first introduced by James W. Pennebaker, who discovered that writing honestly about emotional experiences can reduce psychological stress and improve one's mental health. This approach is considered

appropriate when applied to young people, as they have a high need to express themselves but often find it difficult to do so verbally. A study by Maharani and Noviekayati (2020) showed that expressive writing therapy is effevtive in reducing stress in introverted and extroverted adolescents with albinism (Syah & Dewiyuliana,2023).

In applying this therapy, individuals are given the opportunity to reflect on their feelings emotionally through words, express their anxieties in social interactions, and improve stability in their interpersonal relationships. Qonitatin and colleagues explain that expressing emotional experiences through writing can help individuals reduce anxiety, clarify their thoughts, manage their emotions, and improve their physical health because emotional expression is a natural form of real feelings. Through writing, individuals can share their hidden experiences, including sadness, anxiety, hopes, and desires, thereby creating a safe space to process emotions in a healthier way (Niman et al., 2021).

Although significant progress has been made in the study of expressive writing therapy in recent years, greater attention is now being paid to individual mental health, particularly among adolescents who are at a critical stage of identity development and future planning. According to a bibliometric analysis conducted over the past 40 years, expressive writing therapy has become one of the most widely researched psychological intervention methods worldwide, with more than 1,400 publications in various scientific journals. An analysis of publication trends shows that expressive writing is consistently associated with improved psychological well-being and reduced anxiety symptoms, particularly in the context of strengthening positive psychology skills and emotional regulation (Gao, 2022).

Given the high prevalence of anxiety about the future among adolescents and limited access to formal psychological services, there is a need for alternative interventions that are effective, easy to implement, and affordable. In this context, expressive writing therapy is seen as a strategy that meets these criteria, as it allows individuals to express their emotions freely and intelligently, which has the potential to reduce levels of anxiety about the future. Previous research, as demonstrated by Triana and Anindya (2022), has shown that expressive writing can improve emotional regulation and reduce psychological distress in adolescents. Given the urgency of this significant issue and the potential of this therapy as an easily accessible solution (Aryani Safithry & Sari Dewi, 2020).

This phenomenon is the inability of adolescents to manage and process the uncertainty inherent in the transition to adulthood in a challenging contemporary environment. This anxiety about the future is not just a momentary concern, but a persistent condition that can affect various aspects of adolescents' lives. The effects range from concentration problems in learning, reduced motivation, poor sleep quality, to physical symptoms such as headaches and chronic fatigue (Putri & Hidayat, 2022; Johnson & Williams, 2023). Academically, this anxiety can disrupt performance, interfere with classroom participation, and even influence major or important decisions regarding educational paths (Saputra & Aditama, 2021). If left unaddressed, anxiety about the future carries a high risk of developing into more severe clinical anxiety disorders and reducing adolescents' resilience to cope with future life pressures (Kim & Lee, 2020; Davis & Miller, 2024).

Preliminary research at Al Azhar Batam High School showed that 5 out of 10 students experienced symptoms of anxiety, mostly caused by pressures related to the future, such as choosing a major, preparing for university entrance exams, and career expectations. These findings confirm that anxiety about the future is not just a theoretical issue, but a concrete problem experienced by adolescents in the school environment. Therefore, this research is highly relevant and urgent. This study experimentally tested the effect of expressive writing therapy in reducing anxiety related to the future in adolescents at Al Azhar Batam High School. The results of this study are expected to provide strong evidence for psychology practitioners and school counselors, as well as a basis for policymakers to develop practical, applicable, and sustainable mental health intervention programs in Indonesian schools, preparing adolescents with resilience and optimism for the future.

MATERIALS AND METHODS

A. Research Design.

This study is a quantitative study with a pre-experimental design, using a one group pretest-posttest design approach. In this design, respondents are given a pretest to determine their anxiety levels before the intervention. Next, expressive writing therapy is given as an intervention, followed by a posttest to determine changes in anxiety after the intervention. This design was chosen because it allows researchers to observe changes before and after treatment without a control group.

B. Research Population and Sample.

1. Population.

The population in this study consisted of all 46 high school students at Al Azhar Batam who were within the adolescent age range according to the WHO, namely 13 to 18 years old. These students were assessed as being likely to experience anxiety about the future due to various pressures, such as academic, social, and psychological pressures. Therefore, all students in this population were targeted for anxiety screening using the Future Anxiety Scale (FAS). The screening results showed that 24 students met the inclusion criteria, namely having mild to moderate anxiety levels, and they were then used as the sample in this study.

2. Sample

The sampling technique used in this study was purposive sampling, which is a technique of selecting samples based on certain criteria relevant to the research objectives. The inclusion criteria in this study were students who had mild to moderate levels of anxiety about the future, based on the results of screening using the Future Anxiety Scale (FAS). Of the total 46 students, only 24 met these criteria and were used as the research sample. The sample size of 24 students was considered adequate because several similar studies also used an equivalent or smaller number of respondents, such as the study by Niman et al. (2021), which involved 20 students as participants.

a. Inclusion Criteria
   1. Al Azhar Batam high school students who were in the adolescent age range (13–18 years).
   2. Students who were willing to participate in the study and fill out an informed consent form.
   3. Students who had low to moderate future anxiety scores based on the results of a pretest using the Future Anxiety Scale (FAS), namely:
      a) Low: 35–70
      b) Moderate: 71–120
   4. Students who were fully present in all expressive writing therapy sessions during the study.
   5. Students who are not undergoing other psychological therapy at the same time.

b. Exclusion Criteria
   1. Students who are unwilling to participate in the study or do not fill out the informed consent form.
   2. Students who do not attend all intervention sessions.
   3. Students who have severe psychological disorders that are being treated intensively by a psychologist or psychiatrist.

C. Research Location and Time
   1. Location: This research was conducted at Al-Azhar High School, Batam, Riau Islands Province.
   2. Time: The research was conducted from April to August 2025.

D. Data Collection Tools

In this study, there were two types of data collection tools, namely a quantitative measurement tool in the form of a Future Anxiety Scale (FAS) questionnaire and an intervention tool in the form of an expressive writing therapy application guide.

1. Future Anxiety Scale (FAS) Questionnaire

The Future Anxiety Scale (FAS) is a tool developed to measure a person's level of anxiety about the future. This scale consists of 29 items that measure the dimensions of fear of failure, uncertainty, negative change, and perception of threats in the future. Each item is rated using a 6-point Likert scale:

1 = Very rarely
2 = Rarely
3 = Sometimes
4 = Often
5 = Very often
6 = Always

The total score is obtained by summing all item scores in the range of 0-180. The higher the score, the higher the level of future anxiety. Some items are positive (positive) and vice versa (reverse-scored) during assessment.

This scale has been used in various studies and has shown good validity and reliability (Zaleski, 1996; Lissitz and Green, 2021). This study uses a version that has been translated and adapted into Indonesian through a previous translation and limited testing process.

2. Expressive Writing Therapy Guidelines

To implement the intervention, the researchers used the Expressive Writing Therapy practice guidelines compiled based on Pennebaker's principles (Pennebaker & Smyth, 2021) and adapted from Afni Yan Syah's practice guidelines (2023). This guide includes writing instructions, duration, topics for each session, and practice rules designed to facilitate participants' expression of their deepest thoughts and feelings about the future.

The writing activity was conducted in two sessions over one week, each lasting 20-30 minutes and focusing on concerns, hopes, and uncertainties about the future. Participants were asked to write honestly and continuously without paying attention to grammar or writing structure.

E. Validity & Reliability Testing

1. Validity Testing

Validity testing aims to determine the extent to which an instrument measures what it is intended to measure, in this case, anxiety about the future. In this study, validity was achieved through construct validity testing using the item-total correlation technique. The Future Anxiety Scale (FAS) questionnaire, consisting of 29 items, was administered to 46 participants outside the main sample. The validity test results showed that most items had a correlation value greater than 0.30 ($r>0.30$) and were therefore declared valid. Items that did not meet these criteria were subsequently eliminated or revised to better represent the construct being measured.

2. Reliability

The reliability test aims to measure the extent to which the items in the questionnaire can provide consistent results, namely the internal consistency of the instrument. This test was conducted using Cronbach's Alpha coefficient. The calculation results showed that the Cronbach's Alpha value for the Future Anxiety Scale was 0.872. This value is above the minimum standard value of 0.70, which means that the instrument has high reliability and can be relied upon for use in this study.

F. Data Collection Procedures

Data collection procedures in this study were carried out in several stages as follows:

1. Research Permit Application, the researchers first submitted a research permit application letter to Al Azhar Batam High School and other relevant agencies.
2. Determination of Respondents, the respondents in this study were all 24 students of Al Azhar Batam High School who met the inclusion criteria. The sampling technique used was total sampling, whereby the entire population was used as the sample because the number was limited and it was still possible to study it comprehensively.
3. Pretest Administration, before the treatment (intervention) was given, all respondents were asked to fill out the Future Anxiety Scale (FAS) questionnaire to measure their initial anxiety levels. The results of this pretest were used as baseline data to determine the anxiety levels before the intervention.
4. Intervention Implementation, the researcher provided an intervention in the form of expressive writing therapy to all respondents. This intervention was conducted in two sessions over one week, with each session lasting 20–30 minutes. In each session, participants were instructed to write down their emotional personal experiences, especially those related to sources of stress or anxiety they experienced. This activity aimed to help respondents manage and express their feelings in a healthy way through writing.
5. Posttest Administration, after the entire series of intervention sessions was completed, the respondents were again asked to fill out the Future Anxiety Scale (FAS) questionnaire as a posttest. This posttest aimed to measure whether there was a change in anxiety levels after expressive writing therapy was administered.
6. Data Collection and Processing, the pretest and posttest data were then processed and analyzed using appropriate statistical tests to determine the difference in anxiety levels before and after therapy, as well as to test the research hypothesis.

G. Data Analysis Plan

In this study, data analysis was conducted quantitatively using the Wilcoxon Signed Ranks Test to test the difference in anxiety levels before and after the intervention.

1. Univariate Analysis, univariate analysis was performed to describe the characteristics of the respondents and the distribution of data for each variable. The data analyzed included age, gender, and anxiety levels about the future before and after the intervention. The results were presented in

the form of frequency distribution tables percentages, minimum and maximum values, means, and standard deviations.

2. Bivariate Analysis, bivariate analysis was performed to examine differences in anxiety levels about the future before and after expressive writing therapy. Because this study used a pretest- posttest design with one group, the data were analyzed using the Wilcoxon Signed Ranks Test, a nonparametric statistical test.
3. Normality Test, a normality test was used to determine whether the data were normally distributed. This test is important for determining the type of statistical test to use, i.e., whether to use a parametric or nonparametric test. In this study, the normality test was performed using the Shapiro-Wilk test. The assessment criteria were based on the significance value, namely, if the significance value was greater than 0.05, the data was considered to be normally distributed. Conversely, if the significance value was less than or equal to 0.05, the data was considered to be not normally distributed. Based on the results of the normality test in this study, the data were not normally distributed, so a non-parametric statistical test was used, namely the Wilcoxon Signed Ranks Test.
4. Wilcoxon Signed Ranks Test, the Wilcoxon Signed Ranks Test was used to determine whether there was a significant difference between anxiety scores before and after the intervention in the form of expressive writing therapy. This test was chosen because the research design used was a one-group pretest-posttest, the data obtained was not normally distributed based on the normality test results, and the measurement scale used was ordinal, obtained from the total score of the Future Anxiety Scale (FAS) instrument. The interpretation of the Wilcoxon test results was done by looking at the significance value. If the significance value is less than 0.05, it can be concluded that there is a significant difference between the scores before and after the intervention. Conversely, if the significance value is greater than or equal to 0.05, there is no significant difference.

RESULTS AND DISCUSSION

A. Univariate Analysis Results

Univariate analysis was conducted to describe the data for each variable in this study. In this study, the variable analyzed univariately was the level of anxiety about the future, which was measured before and after the intervention in the form of expressive writing therapy. The data are presented in the form of frequency distributions and percentages to facilitate an overview of the respondents based on the pretest and posttest results.

Based on Table 1, it is known that of the 24 respondents who met the inclusion criteria, the majority were female, namely 14 respondents (58.3%), and the rest were male, namely 10 respondents (41.7%). Meanwhile, based on age, most respondents were 15 years old, namely 9 respondents (37.5%), followed by 8 respondents (33.3%) who were 16 years old, and the fewest were 7 respondents (29.2%) who were 17 years old.

Table 1: Frequency Distribution of Respondent Characteristics Regarding the Effect of Expressive Writing Therapy on Reducing Anxiety About the Future Among High School Students at Al Azhar Batam

Respondent Characteristics	N	Persentase (%)
Gender		
Female	14	58,3
Male	20	41,7
Total	**24**	**100,0**
Age		
15 years old	9	37,5
16 years old	8	33,3
17 years old	7	29,2
Total	**24**	**100,0**

Based on Table 2, the pretest results show that of the 24 respondents, 3 respondents (12.5%) were in the low anxiety category and 21 respondents (87.5%) were in the moderate anxiety category. After

being given expressive writing theraphy (posttest), the number of respondents in the low anxiety category increased to 19 respondents (79.2%), while those in the moderate anxiety category decreased to 5 respondents (20.8%). This shows a decrease in anxiety levels about the future after the intervention was given.

Table 2: Distribution of Respondents Based on Anxiety Level Measurements Before and After Expressive Writing Therapy

	Category	n	f
Pretest	Low	3	12.5%
	Medium	21	87.5%
Posttest	Low	19	79,2%
	Medium	5	20,8%
	Total	**24**	**100%**

B. Bivariate Analysis Results

Bivariate analysis was conducted to determine whether there was a significant effect between expressive writing therapy and a decrease in anxiety about the future among high school students at Al Azhar Batam.

Table 3: Testing the Effect of Expressive Writing Therapy on Decreasing Anxiety About the Future Among High School Students at Al Azhar Batam

Knowledge	Mean	SD	*P value*
Pre-Test	100.83	13.360	0,000
Post-Test	63.54	6.744	

Based on Table 3, the Wilcoxon test results show that the p-value = 0.000 ($p < 0.05$), so it can be concluded that there is a significant difference between the knowledge scores before and after the intervention. Thus, H0 is rejected and Ha is accepted, which means that the intervention was effective in reducing the knowledge level from a pre-test score of 100.83 to a post-test score of 63.54.

C. Interpretation and Discussion of Results

1. Univariate Analysis

The results of this study provide a clear picture of the characteristics of respondents involved in expressive writing therapy intervention, as well as their anxiety levels before and after treatment. Based on frequency distribution data, the majority of respondents were female, namely 14 people (58.3%), while 10 people (41.7%) were male. This finding is in line with Santrock's (2018) research, which states that women are more prone to anxiety than men due to differences in emotional regulation, sensitivity to social stressors, and hormonal influences that affect mood and stress levels. In addition, women tend to be more open in expressing their emotions than men, so the anxiety they experience is more easily identified. This shows that gender is a contributing factor to anxiety levels, even though in this study all respondents, both male and female, felt the benefits of expressive writing therapy.

In terms of age, most respondents were 15 years old (37.5%), followed by 16 years old (33.3%), and 17 years old (29.2%). This age range falls into the middle adolescence category, which is a developmental phase that, according to Hurlock (2017), is characterized by increased academic demands, the search for identity, and planning for the future. At this stage, individuals begin to think about their future, including their high school major, college, and future career. If not managed properly, this pressure can trigger excessive anxiety, especially when they feel they do not have full control over their future. These findings are relevant to Erikson's developmental theory, which states that adolescents are in the identity vs. role confusion stage, where failure to form a clear identity can lead to uncertainty and anxiety about the future.

The results of the anxiety level analysis before expressive writing therapy showed that the majority of respondents were in the moderate category (87.5%), while only 12.5% were in the low category. No respondents were in the high or very high categories, which means that the anxiety experienced by the respondents was still within adaptive limits, but if left unaddressed, it could develop into something more severe. After receiving expressive writing therapy intervention, there was a significant change in the distribution of anxiety levels. The number of respondents in the low category increased to 79.2%, while the moderate category decreased to 20.8%. This indicates that the intervention was able to reduce anxiety levels in most respondents, and for some respondents, the decrease was quite drastic, from the moderate to the low category.

This change can be explained through emotional processing theory, in which expressive writing allows individuals to release pent-up emotions and process them cognitively, resulting in a better understanding of the situation at hand. Pennebaker (1997) explains that writing about emotional experiences can help individuals relieve psychological pressure and reduce the intensity of negative emotions. In the context of this study, respondents were given the opportunity to write down their concerns about the future, including academic pressure, career uncertainty, and social expectations. Through this writing process, they were able to express thoughts and feelings that were previously difficult to express, providing a cathartic effect that contributed to a decrease in anxiety.

These results are also consistent with the findings of Afni Yan Syah (2023), which show that expressive writing therapy interventions are effective in reducing anxiety in adolescents. The mechanisms underlying this reduction include cognitive restructuring and improved emotional regulation. By pouring their worries into writing, individuals can organize their thoughts in a more structured way, identify negative thought patterns, and replace them with more adaptive perspectives. This is in line with Beck's cognitive theory, which states that changes in thoughts will affect changes in emotions. In other words, when adolescents are able to change their perspective on the future, the level of anxiety they feel will also decrease.

2. Bivariate Analysis

Bivariate analysis in this study was conducted using the Wilcoxon Signed Ranks Test because the data were not normally distributed based on the Shapiro-Wilk test results. The test results showed a Z value of -4.288 with $p = 0.000$ ($p < 0.05$). Based on the hypothesis testing criteria, a p- value of less than 0.05 indicates that there is a significant difference between the anxiety levels before and after the expressive writing therapy intervention. Thus, the alternative hypothesis (Ha), which states that expressive writing therapy has an effect on reducing anxiety about the future in adolescents, is accepted, while the null hypothesis (H0) is rejected. These results are reinforced by the data in the ranks table, which shows that all respondents (100%) experienced a decrease in anxiety scores (Negative Ranks = 24), while no respondents experienced an increase (Positive Ranks = 0) or remained the same (Ties = 0).

The fact that all respondents experienced a decrease in anxiety indicates the high effectiveness of this intervention. This effectiveness can be explained through the mechanism of expressive writing therapy, which provides individuals with the opportunity to express their deepest thoughts and feelings without fear of judgment. According to Freud's catharsis theory, expressing pent-up emotions can reduce internal pressure and provide emotional relief. In addition, writing allows for better cognitive processing, enabling respondents to understand their problems from a broader perspective, reduce repetitive negative thoughts, and improve their adaptability. This is in line with Gross's (2015) theory of emotion regulation, which states that an individual's ability to manage and modify their emotions plays an important role in mental health. By writing about their feelings, individuals can explore negative emotions and shift their focus to positive aspects, such as hopes and plans for the future, as was done in the second therapy session. This process helps increase optimism and a sense of control over the future, which ultimately reduces anxiety.

Overall, the findings of this study indicate that expressive writing therapy can be an effective and practical approach to addressing adolescents' anxiety about the future. This intervention is not only easy to implement but also provides long-term benefits in improving coping skills and emotional regulation. This is important given the high prevalence of anxiety among adolescents, which, if left unaddressed, can impact their mental health, academic performance, and quality of life in the future.

CONCLUSION

Based on the results of research conducted on "The Effect of Expressive Writing Therapy on Reducing Anxiety about the Future in Al Azhar Batam High School Students," it can be concluded that expressive writing therapy is proven to be effective in reducing anxiety levels about the future in adolescents. This finding answers the main research question, namely whether expressive writing therapy has a significant effect on reducing anxiety about the future among Al Azhar Batam high school students. The results of the Wilcoxon Signed Ranks Test showed a significant difference between anxiety scores before and after the intervention

($p < 0.05$), with all respondents experiencing a decrease in anxiety. This indicates that this intervention can be a practical, inexpensive, and applicable alternative psychological approach in efforts to improve the mental health of adolescents in the school environment.

Overall, this study provides empirical evidence that expressive writing therapy is not only effective in the context of adolescents but also has the potential to be further developed as a non-pharmacological intervention. The implications of these research findings for the development of science and technology include contributions to the fields of health psychology and mental health nursing, where this intervention can be expanded through digital technology, such as mobile applications or online platforms, to facilitate wider access to adolescents in remote areas. This development could drive innovation in mental health technology, such as the integration of artificial intelligence for the analysis of expressive writing, enabling real-time monitoring and evaluation of interventions. Furthermore, these findings enrich the scientific literature on writing-based interventions, which can serve as a basis for further research with more robust designs, such as longitudinal or multi-site studies, to strengthen the generalization of results and contribute to the advancement of global mental health technology. Thus, this research not only addresses practical needs in treating adolescent anxiety but also opens up opportunities for technological innovations that can improve the effectiveness and accessibility of psychological interventions in the future.

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REFERENCES

Aryani Safithry, E., & Sari Dewi, I. (2020). Terapi Menulis Ekspresif Untuk Menurunkan Tingkat Kecemasan Akademik Peserta Didik Di Sekolah Full Day School. *Suluh: Jurnal Bimbingan Dan Konseling*, *5*(2), 40–47. https://doi.org/10.33084/suluh.v5i1.1313

Boaden, K., Tomlinson, A., Cortese, S., & Cipriani, A. (2020). Antidepressants in Children and Adolescents: Meta-Review of Efficacy, Tolerability and Suicidality in Acute Treatment. *Frontiers in Psychiatry*, *11*(September), 1–13. https://doi.org/10.3389/fpsyt.2020.00717

Gao, X. (2022). Research on Expressive Writing in Psychology: A Forty-year Bibliometric Analysis and Visualization of Current Status and Research Trends. *Frontiers in Psychology*, *13*(October). https://doi.org/10.3389/fpsyg.2022.825626

Halik, A., Helwa, A., & Ramadhani, A. (2022). Penerapan Teknik Expressive Writing Langkah Membantu Siswa Mengelola kecemasan akan masa depan. *SEMANGGI : Jurnal Pengabdian Kepada Masyarakat*, *1*(02), 100–110. https://doi.org/10.38156/sjpm.v1i02.135

Katuuk, H. M., Wahyuni, S., & Buhang, M. (2024). *Pengaruh Terapi Menulis Ekspresi Terhadap kecemasan akan masa depan di Madrasah Aliyah Muhamadiyah Talawaan Bajo Minahasa Utara*. *8*.

Kemenkes RI. (2018). Tingkat kecemasan Remaja Indonesia. *Jurnal Muara Medika Dan Psikologi Klinis*, *3*(1), 22–29.

Maulida, S. A., & Fitriyani, H. (2023). Pengaruh Expressive Writing Therapy Terhadap kecemasan Akademik Yang Timbul Pada Siswa SMA Swasta di Jakarta. *INSIGHT: Jurnal Bimbingan Konseling*, *12*(1), 65–75. https://doi.org/10.21009/insight.121.08

Priebe, S. (2020). *Effectiveness of Expressive Writing in the Reduction of Psychological Distress During the COVID-19 Pandemic : A Randomized Controlled*. *11*(November), 1–11. https://doi.org/10.3389/fpsyg.2020.587282

Syah, A. Y., & Dewiyuliana, D. (2023). The Effectiveness of Expressive Writing Therapy in Reducing Anxiety Levels in Teenage Bullying Victims. *Media Keperawatan Indonesia*, *6*(3), 175. https://doi.org/10.26714/mki.6.3.2023.175-183

Zikry, A., Mentari, B., Liana, E., & Pristya, T. Y. R. (2020). Teknik Manajemen Stres yang Paling Efektif pada Remaja: Literature Review Most Effective Stress Management Techniques in Adolescents: Literature Review. *Jurnal Ilmiah Kesehatan Masyarakat*, *12*, 2022.