

When indigenous melodies heal: Peace melody sape music–based relaxation counseling for reducing student anxiety

Riana Kurnia Dewia¹, Wahyu Nanda Eka Saputra², Hardi Santosa³

^a State Vocational School 2 Balikpapan, Kalimantan Timur, Indonesia

^b Ahmad Dahlan University, Yogyakarta, Indonesia

¹2408056026@webmail.uad.ac.id *; ²wahyu.saputra@bk.uad.ac.id; ³hardi.santosa@bk.uad.ac.id

*corresponding author

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ABSTRACT

Anxiety is one of the most prevalent psychological problems among adolescents and can negatively affect academic performance, emotional well-being, and social adjustment. Although relaxation counseling has been widely used to reduce anxiety, the integration of indigenous cultural resources into school counseling remains limited. This study aimed to examine the effectiveness of relaxation counseling assisted by the Peace Melody of Sape Music in reducing anxiety among Grade X students at State Vocational High School 2 Balikpapan. A quantitative quasi-experimental method with a nonequivalent pretest–posttest control group design was employed. Sixteen students with moderate to high anxiety levels were selected through purposive sampling and assigned to an experimental group ($n = 8$) and a control group ($n = 8$). The experimental group received seven sessions of relaxation counseling integrated with the Peace Melody of Sape Music, while the control group received conventional counseling services. Data were collected using a validated anxiety scale and analyzed using descriptive statistics, paired-samples t -tests, and independent-samples t -tests. The results showed a statistically significant reduction in anxiety among students in the experimental group ($p < .001$), with greater improvement than the control group. These findings indicate that integrating Sape music into relaxation counseling enhances emotional regulation and provides a culturally responsive counseling approach. This study contributes empirical evidence supporting the use of local wisdom as an innovative therapeutic medium to promote adolescent mental health in educational settings.

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1. Introduction

Adolescence is a critical developmental period marked by rapid biological, psychological, cognitive, and social changes that influence emotional adjustment and mental health (Poetry et al., 2024). During this stage, adolescents are required to adapt to increasingly complex academic demands, interpersonal relationships, and expectations regarding future careers. Failure to cope effectively with these developmental challenges often results in psychological distress, particularly anxiety, which has become one of the most common mental health problems among adolescents worldwide (Leigh et al., 2021; Maulida Rahmawati et al., 2024). Anxiety not only affects students' emotional well-being but also interferes with concentration, motivation, decision-making, and academic performance (Rizki et al., 2025). Consequently, schools have an important responsibility to provide preventive and curative counseling services that support students in managing anxiety and maintaining psychological well-being.

Recent evidence indicates that anxiety among adolescents continues to increase in educational settings. Nawaz et al. (2021) reported that more than half of secondary school students experienced moderate to severe anxiety. Similarly, Jannah and Wicaksono (2024) found that

approximately 52.3% of adolescent girls exhibited symptoms of anxiety. In Indonesia, academic anxiety has become increasingly evident as students encounter pressure related to examinations, academic achievement, and adaptation to school environments. Preliminary observations conducted at State Vocational High School 2 Balikpapan further revealed that 66% of Grade X students experienced moderate anxiety, while 17% reported high levels of anxiety. Such conditions may reduce students' learning engagement, impair cognitive functioning, and negatively affect academic achievement if appropriate interventions are not implemented.

Academic anxiety manifests through cognitive, emotional, physiological, and behavioral responses that hinder students' ability to function optimally (Nawaz et al., 2021). Students experiencing anxiety frequently report excessive worry, nervousness, sleep disturbances, muscle tension, and difficulty concentrating during classroom activities and examinations (Oktofya et al., 2022; Setiawati et al., 2024; Andini, 2022). Prolonged anxiety may also reduce self-confidence and resilience, making students more vulnerable to stress and emotional exhaustion (Abarghooe et al., 2022; Syamsiah et al., 2025; Zendeudel et al., 2022). Therefore, counseling interventions that simultaneously address physiological relaxation and emotional regulation are highly relevant for reducing anxiety and improving students' adaptive coping strategies within educational contexts.

Various psychological interventions have been developed to reduce adolescent anxiety. Previous studies have demonstrated the effectiveness of emotion regulation training, expressive writing therapy, cognitive defusion techniques, and relaxation counseling in alleviating anxiety symptoms among students (Jannah & Wicaksono, 2024; Setiawati et al., 2024). In addition, music therapy has received increasing attention because auditory stimulation can reduce physiological arousal, stabilize emotions, and promote relaxation. Both classical music and traditional instrumental music have been reported to decrease stress and anxiety across different populations. These findings suggest that combining relaxation techniques with therapeutic music has considerable potential for improving students' psychological well-being.

Despite the promising findings of previous research, several important gaps remain. Most existing studies have examined relaxation counseling and music therapy as separate interventions, while only limited research has integrated traditional indigenous music into structured school counseling services. Furthermore, therapeutic media employed in earlier studies have generally relied on classical music or contemporary instrumental compositions, with relatively little attention given to local cultural heritage as a counseling resource. Considering Indonesia's rich cultural diversity, integrating indigenous musical traditions into counseling interventions represents an important opportunity to develop culturally responsive guidance and counseling practices that are contextually meaningful for students.

One form of Indonesian cultural heritage with therapeutic potential is the Sape, a traditional Dayak musical instrument originating from Kalimantan. The peaceful melodies produced by Sape are characterized by slow tempo, repetitive rhythmic patterns, and harmonious tones that promote relaxation and emotional stability. Integrating Sape music into relaxation counseling not only facilitates physiological and psychological relaxation but also strengthens students' appreciation of local wisdom and cultural identity. This culturally responsive approach aligns with contemporary counseling perspectives that emphasize the importance of incorporating clients' cultural backgrounds into counseling interventions to enhance their effectiveness and relevance within local contexts (Pilang, 2022).

Based on these considerations, this study aims to examine the effectiveness of relaxation counseling assisted by the Peace Melody of Sape Music in reducing anxiety among Grade X students at State Vocational High School 2 Balikpapan. Unlike previous studies that primarily focused on conventional relaxation techniques or non-indigenous music, the present research integrates behavioral relaxation counseling with traditional Sape music as an innovative culturally responsive intervention. The findings are expected to contribute to the growing literature on culture-based counseling, provide empirical evidence regarding the effectiveness of indigenous musical traditions in reducing adolescent anxiety, and offer practical recommendations for developing innovative guidance and counseling services in Indonesian schools.

2. Method

This study employed a quantitative approach with a quasi-experimental design using the Nonequivalent Pretest–Posttest Control Group Design. Two groups participated: an experimental group receiving relaxation counseling based on the Peace Melody of Sape music and a control group receiving conventional school counseling services. Both groups completed pretest and posttest assessments to evaluate changes in anxiety levels following the intervention. The study was conducted at State Vocational High School 2 Balikpapan during the second semester of the 2025/2026 academic year. The population consisted of 426 tenth-grade students. Participants were selected through purposive sampling based on moderate-to-high anxiety levels, willingness to participate, and school approval, resulting in comparable experimental and control groups.

Student anxiety was measured using a Likert-scale questionnaire developed from adolescent anxiety indicators. The instrument demonstrated satisfactory validity, with 27 valid items retained, and high reliability. Reverse scoring was applied, whereby higher scores indicated lower anxiety levels. Observation sheets and documentation were also used to ensure the fidelity of the intervention. The intervention consisted of seven 60-minute counseling sessions integrating behavioristic counseling principles, relaxation techniques, and the instrumental Peace Melody of Sape music. Each session included breathing exercises, progressive muscle relaxation, mindfulness, positive visualization, self-affirmation, and evaluation, with Sape music played throughout the relaxation process to promote emotional calmness. Data were analyzed using IBM SPSS Statistics. Descriptive statistics were followed by the Shapiro–Wilk normality test and Levene's homogeneity test. Intervention effectiveness was examined using the Paired Sample t-test, while differences between the experimental and control groups were analyzed using the Independent Sample t-test with a significance level of $\alpha = .05$.

3. Results and Discussion

This study examined the effectiveness of relaxation counseling assisted by the peaceful melodies of Sape music in reducing students' academic anxiety. The findings are presented through descriptive and inferential statistical analyses to describe changes in students' anxiety levels before and after the intervention and to evaluate the effectiveness of the counseling program. The descriptive comparison of students' anxiety scores in the experimental and control groups is presented in Table 1.

Table 1. Pretest and Posttest Results of the Experimental Group

No	Name	Experimental Group		Name	Control Group	
		Pre-test	Post-test		Pre-test	Post-test
1.	AWI	52	102	SH	50	99
2.	NSR	50	103	RQA	50	95
3.	NSA	50	92	FAA	49	80
4.	WD	49	99	ARER	49	95
5.	RSH	48	104	RNR	48	89
6.	AAR	46	90	GPDS	48	96
7.	SLJ	44	99	AD	46	97
8.	NA	41	104	ADP	43	88
Average		47.50	99.13		47.88	92.38

Table 1 shows that the experimental and control groups had comparable baseline anxiety scores prior to the intervention, with mean pretest scores of 47.50 and 47.88, respectively. This similarity indicates that both groups began the study under relatively equivalent conditions. Following the intervention, both groups demonstrated improvements in anxiety scores; however, the magnitude of improvement differed considerably. The experimental group achieved a mean posttest score of 99.13,

whereas the control group reached 92.38. Likewise, the experimental group demonstrated a greater mean gain score (51.63) than the control group (44.50), indicating that students who participated in relaxation counseling assisted by the peaceful melodies of Sape music experienced greater reductions in anxiety than those who received conventional counseling.

The greater improvement observed in the experimental group suggests that integrating relaxation counseling with the peaceful melodies of Sape music provides additional therapeutic benefits beyond

conventional counseling. Relaxation techniques encourage students to regulate breathing, reduce muscle tension, and manage physiological responses associated with anxiety. At the same time, the calming characteristics of Sape music create a supportive therapeutic atmosphere that facilitates emotional regulation and enhances students' comfort during counseling sessions. The combination of these components appears to enable students to cope more effectively with academic pressure and reduce excessive worry related to learning activities.

From a psychological perspective, the intervention may also have strengthened students' adaptive coping abilities. Throughout the counseling process, students were guided to recognize situations that triggered anxiety, practice relaxation strategies, and gradually develop more constructive responses to academic stress (Santrock, 2023; Rizki et al., 2025; Oktofya et al., 2022).. Repeated exposure to these techniques likely enhanced their confidence in managing emotional reactions, thereby contributing to the greater improvement observed in the experimental group. These findings suggest that relaxation counseling supported by culturally meaningful music not only alleviates anxiety but also promotes students' emotional resilience and self-regulation.

The present findings are consistent with previous studies reporting that music-assisted relaxation effectively reduces anxiety and improves psychological well-being. Tang et al. (2021) demonstrated that music therapy promoted emotional regulation and significantly reduced anxiety symptoms. Similar findings were reported by Hamdani et al. (2022), Zendehdel et al. (2022), Abarghooe et al. (2022), and Liao et al. (2023), who concluded that combining relaxation techniques with therapeutic music enhances emotional stability and decreases psychological distress across various populations. The consistency between the present findings and previous evidence reinforces the role of music-assisted relaxation as an effective strategy for improving students' mental health.

To provide a clearer illustration of these findings, the comparison of pretest and posttest anxiety scores between the experimental and control groups is presented in Figure 1.

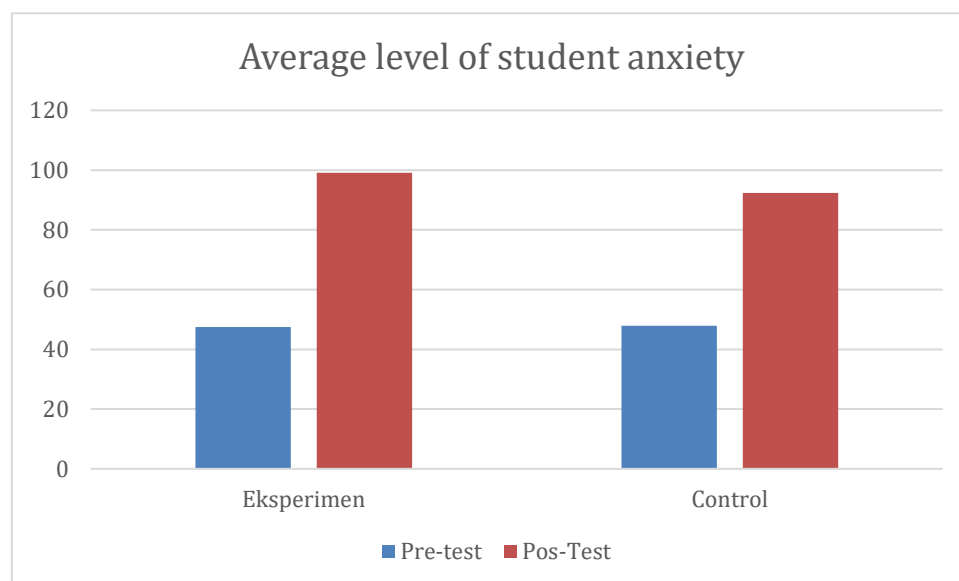


Fig. 1. Pretest and Posttest Results for the Control and Experimental Groups

Figure 1 visually demonstrates the changes in students' anxiety scores before and after the intervention. Both groups exhibited similar anxiety levels at baseline, whereas the experimental group showed a substantially greater increase in posttest scores following the intervention. The wider gap between pretest and posttest scores in the experimental group provides visual confirmation of the greater improvement achieved through relaxation counseling assisted by the peaceful melodies of Sape music. These graphical findings are consistent with the descriptive results presented in Table 1 and further illustrate the superiority of the intervention compared with conventional counseling. To determine whether the observed improvement was statistically significant, a paired-samples t-test was conducted, and the results are presented in Table 2.

Table 2. Paired-Samples t-Test Comparing Pretest and Posttest Anxiety Scores in the Experimental Group

Test Statistics	Coefficient
Mean Difference	-51.625
t	-21.668
Degrees of Freedom (df)	7
Sig. (2-tailed)	.000

The paired-samples t-test revealed a statistically significant difference between the pretest and posttest anxiety scores of the experimental group ($t = -21.668$, $df = 7$, $p < .001$). The mean difference of -51.625 indicates a substantial reduction in anxiety following the intervention, confirming that the observed improvement was not attributable to random variation. These inferential findings support the descriptive results presented in Table 1 and Figure 1 and provide strong statistical evidence for the effectiveness of relaxation counseling assisted by the peaceful melodies of Sape music.

The statistically significant improvement can be explained through the complementary interaction between relaxation counseling and the therapeutic properties of music. Relaxation techniques activate the parasympathetic nervous system, reducing physiological arousal by slowing respiration, decreasing muscle tension, and promoting emotional calmness. Simultaneously, the slow tempo and harmonious melodies of Sape music provide a soothing auditory stimulus that facilitates relaxation, enhances concentration, and creates a positive emotional experience during counseling. The repeated practice of these relaxation strategies throughout the intervention likely strengthened students' self-regulation skills, enabling them to respond more adaptively to academic challenges and reducing persistent anxiety.

An important contribution of this study lies in the integration of indigenous cultural resources into school counseling practice. While previous studies have predominantly employed classical music, instrumental relaxation music, or natural sounds as therapeutic media, the present study incorporated the peaceful melodies of Sape, a traditional musical instrument from Kalimantan, into the counseling process. This culturally responsive approach extends previous research by demonstrating that local cultural heritage can serve as an effective therapeutic medium while simultaneously enriching guidance and counseling services with culturally meaningful practices. The findings therefore provide both theoretical and practical contributions to the development of culturally based counseling interventions, particularly within Indonesian educational settings.

Despite these promising findings, several limitations should be acknowledged. The study involved a relatively small sample from a single vocational high school, limiting the generalizability of the findings to broader student populations. In addition, the effectiveness of the intervention was evaluated only through immediate posttest measurements without follow-up assessments to examine the long-term sustainability of the counseling outcomes. Future research should therefore involve larger and more diverse samples, employ longitudinal designs, and compare Sape music with other culturally based musical interventions to further strengthen the evidence supporting culturally responsive guidance and counseling services.

4. Conclusion

This study demonstrates that relaxation counseling based on the Peace Melody of Sape music is an effective intervention for reducing anxiety among vocational high school students. By integrating behavioristic relaxation techniques with indigenous musical traditions, the intervention not only improved students' emotional regulation but also highlighted the value of culturally responsive counseling in educational settings. The novelty of this study lies in the incorporation of the Peace Melody of Sape music as a local wisdom-based therapeutic medium within a structured counseling model, providing empirical evidence that culturally grounded interventions can enhance the effectiveness of school counseling services. These findings contribute to the growing body of literature on culture-based counseling while offering a practical and contextually relevant approach for school counselors to promote students' psychological well-being and preserve local cultural heritage simultaneously. Future studies are encouraged to examine the effectiveness of this

intervention across broader populations and cultural settings using more rigorous research designs, such as randomized controlled trials and longitudinal studies, to further validate its long-term impact and underlying psychological mechanisms.

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