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The effectiveness of korean pop music therapy on the stress levels of adolescents at SMAN 2 Kota Serang in 2023

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i></p> <p>Received Dec 18, 2023 Revised Feb 5, 2024 Accepted Feb 27, 2024</p> <hr/> <p><i>Keywords:</i></p> <p>Antibiotics Behavior Dhiarrhea Knowledge</p>	<p>In Southeast Asia, including Indonesia, antibiotic use is very high, reaching more than 80% in several provinces in Indonesia. This will lead to antibiotic resistance, one of the top three public health threats of the 21st century. Research needs to be carried out regarding the level of knowledge and behavior of mothers in using antibiotics for children's diarrhea. This was quantitative research with an analytical observational method with a cross sectional approach. Respondents filled out a questionnaire regarding their knowledge and behavior of using antibiotics which has been tested for validity and reliability. The data were analyzed using univariate and bivariate analysis using chi square. There were 100 people. The research results showed that most research subjects were mothers aged 26-30 years (29%). Based on the level of knowledge, most subjects were in the sufficient category (56%), and based on maternal behavior the majority were in the poor category (69%). There is no relationship between mother's knowledge and behavior in using antibiotics in children with diarrhea with a p value of 0.831. It can be concluded that here is no relationship between mother's knowledge and behavior in using antibiotics in children with diarrhea with a p value of 0.831.</p> <p><i>This is an open access article under the <a href="#">CC BY-NC</a> license.</i></p> <div></div>

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INTRODUCTION

Stress is a psychophysiological condition that can affect the balance of the body and mind. Stress refers to a mental condition that arises due to pressure, both from the failure to meet personal needs and pressure from the environment (Andriyani, 2019). The response to stress can originate from internal or external factors and can be tangible or abstract (Reski Amelia, 2020). Stress occurs when there is an imbalance between individual demands and capabilities, affecting emotional, mental, and stress-related thoughts and behaviors (Prasetyo et al., 2018). Some people may perceive stress as a threat to themselves. Stress is differentiated into two types: eustress, which is positive and can provide motivation to overcome problems, and distress, which is negative and induces feelings of sadness, fear, despair, and anxiety (Audina, 2023). Nevertheless, it is

challenging for others to determine the type of stress someone is experiencing, as it depends on individual factors and perceived stressors.

Stress can be experienced by individuals of various age groups, including children, teenagers, and adults. The adolescent period, known as "storm and stress," is often marked by physical, cognitive, emotional, and social changes that can act as stressors (Yuliana & Hidayati, 2015). In addition, academic demands, family issues, and other factors can also cause stress in teenagers (Istighfana, 2019). Stressors include demands for education continuation, work pressure, excessive expectations from parents, family issues, and social interactions (Istighfana, 2019). Although stressors may be the same, stress responses can vary based on perception, health, personality, previous experiences, coping mechanisms, gender, and individual emotional management (Istighfana, 2019). The World Health Organization notes that over 200 million people worldwide suffer from anxiety, and 322 million people experience depression. The prevalence of emotional disorders in individuals aged 15 and above has increased to 9.8% (Balitbangkes, 2018). Common methods to address stress involve socialization, cognitive therapy, positive thinking, relaxation, hypnotherapy, humor, and music therapy (Wong, 2022).

Music therapy has been recognized as one effective method to reduce stress levels and improve mental well-being (Chan & Ho, 1998). Both active and passive music therapy are considered effective ways to cope with stress (Hidayat, 2020). Passive music therapy can help stimulate activity in the hypothalamus, prevent the release of stress hormones, and provide total body and mind relaxation (Rosanty, 2014). In the context of adolescents, music therapy can be a valuable tool to help them cope with daily life pressures (Saarikallio & Erkkilä, 2017). Some studies suggest that listening to music can help reduce levels of anxiety and tension (Li et al., 2015).

One of the music genres that is highly favored, especially by teenagers, is Korean Pop (K-Pop). Korean Pop (K-pop) music has become a global phenomenon with fans of various ages, including teenagers. Many teenagers are drawn to the K-pop music genre, making it uniquely appealing not only due to its catchy melodies but also because of its distinctive cultural and artistic elements (Hur & Kim, 2019). K-Pop is not just a form of entertainment but can also be used as a therapeutic tool to reduce stress levels in teenagers (Cho & Lee, 2018). Using K-pop as a tool to manage stress in teenagers can be considered an innovative and engaging therapeutic approach. Korean Pop, as a music genre, has become a popular choice for teenagers to cope with stress, with positive impacts, especially in terms of entertainment and relaxation (Wahyuningsih et al., 2022).

This research has significant benefits in understanding the influence of Korean Pop music therapy on the stress levels of adolescents in the school environment. With the results of this study, there will be valuable contributions to the field of mental health, especially in stress management among adolescent populations. Additionally, these findings can also provide a basis for the development of more effective intervention strategies to help adolescents cope with stress and improve their well-being.

In the context of schools, this research can also provide valuable insights for improving mental health services in educational settings. The implementation of Korean Pop music therapy as one of the stress management methods can be a beneficial addition in providing holistic mental health services to students. Furthermore, this research can help raise awareness of the importance of music's role in mental health among teachers, counselors, and school administrators.

In addition to practical benefits, this research also makes academic contributions by complementing the literature on the use of music as therapy in addressing stress in adolescents. These findings can serve as a basis for further research in the field of music therapy and mental health, as well as providing a deeper understanding of the influence of music, particularly Korean Pop, in alleviating stress among adolescent populations. Thus, this research not only provides practical benefits for the school environment and adolescent mental health but also makes valuable academic contributions to the development of knowledge about music therapy and stress management.

This research was conducted to assess the effectiveness of Korean Pop music therapy on the stress levels of high school students in SMAN 2 Kota Serang in 2023. In the preliminary study, it was found that students experienced stress symptoms such as irritability, difficulty concentrating, and fatigue due to a heavy workload. While the school counseling services were involved in providing classical guidance services, some students were unaware of stress symptoms and had difficulty overcoming them. Therefore, this research aims to evaluate the impact of Korean Pop music therapy on the stress levels of adolescents in that school environment.

## RESEARCH METHOD

This research is a quantitative study with a Pre-Experimental research design and a one-group pre-test and post-test design approach. The sample in this study consisted of 18 respondents from class XI IPA 1-3 selected using purposive sampling. The measurement instrument in this study used the DASS-42 (Depression Anxiety Stress Scale) questionnaire in Google Form, which was then distributed to respondents so that the researcher could collect and analyze data using computer applications with paired simple T-test statistical tests.

## RESULTS AND DISCUSSIONS

**Table 1.** Distribution of adolescent stress levels before Korean Pop music therapy at SMAN 2 Kota Serang

Stress Level	Mean	SD	SE	Min	Max
<i>Pretest</i>	19,28	3,578	0,843	15	26

Based on Table 1.1, the mean stress level of respondents before Korean Pop music therapy is 19.28, with a standard deviation of 3.578, standard error of 0.843, a minimum score of 15, and a maximum score of 26.

**Table 2.** Distribution of frequency of adolescent stress levels before Korean Pop music therapy at SMAN 2 Kota Serang

Stress Level Pretest	Frequency	Percentage (%)
Normal	0	0%
Mild Stress	7	39,9%
Moderate Stress	10	55,6%
Severe Stress	1	5,6%
Very Severe Stress	0	0%
Total	18	100%

Based on Table 2, the results show that each respondent experienced mild stress levels with 7 respondents (39.9%), moderate stress levels with 10 respondents (55.6%), and severe stress levels with 1 respondent (5.6%).

**Table 3.** Distribution of adolescent stress levels after Korean Pop music therapy at SMAN 2 Kota Serang

Stress Level	Mean	SD	SE	Min	Max
<i>Posttest</i>	14,39	5,822	1,372	5	25

Based on Table 3, the mean stress level of respondents after Korean Pop music therapy is 14.39, with a standard deviation of 5.822, standard error of 1.372, a minimum score of 5, and a maximum score of 25.

**Table 4.** Distribution of adolescent stress levels after Korean Pop music therapy at SMAN 2 Kota Serang

Stress Level Posttest	Frequency	Percentage (%)
Normal	11	61,1%
Mild Stress	3	16,7%
Moderate Stress	4	22,2%
Severe Stress	0	0%

Stress Level Posttest	Frequency	Percentage (%)
Very Severe Stress	0	0%
Total	18	100%

Based on Table 4, the results show that each respondent has a normal stress level with 11 respondents (61.1%), mild stress level with 3 respondents (16.7%), and moderate stress level with 4 respondents (22.2%).

**Table 5.** Effectiveness of Korean Pop music therapy on adolescent stress levels at SMAN 2 Kota Serang in 2023

Stress Level	Paired Difference			P value
	Mean	SD	SE	
Before Korean Pop music therapy				
After Korean Pop music therapy	4,889	6,351	1,497	0,005

Based on Table 5, the paired simple T-test statistical test resulted in an average paired difference of 4.889, a standard deviation of 6.351, a standard error of 1.497, and a p-value of 0.005.

### **Distribution of frequency of adolescent stress levels before Korean Pop music therapy at SMAN 2 Kota Serang**

Stress is the body's response to changes in the environment, whether physical, mental, or emotional (Thoma et al., 2013). This reaction is known as "fight or flight," leading to increased heart rate, faster breathing, tense muscles, and increased blood pressure (Reski Amelia, 2020). This research aligns with a study conducted by Chusnia et al., (2018) on the effectiveness of classical Mozart music therapy and murotal therapy of Surah Ar-Rahman in reducing the academic stress levels of teenagers. The study involved 70 respondents divided into control and experimental groups. The results showed that the majority of Group I experienced moderate stress with a percentage of 65.7%, while Group II mostly experienced moderate stress with a percentage of 77.1%.

The early to late adolescent age is a challenging period characterized by the search for identity and is difficult due to various changes in biological, cognitive, emotional, and social functions. These changes act as stressors that can induce stress in adolescents (Yuliana & Hidayati, 2015). Additionally, academic stress is felt by teenagers due to the need to complete assignments according to the existing competency-based curriculum (Istighfana, 2019), such as school assignments, midterm exams, final exams, busy school schedules, and close deadlines.

The triggering factors of stress or stressors, such as the demand to continue education to a higher level, pressure to work immediately after graduation, excessive expectations from parents, confusing rules, feeling unappreciated, ignored, family issues, and non-academic activities such as school organizations or extracurricular activities, social interactions, and other issues (Reski Amelia, 2020).

### **Distribution of adolescent stress levels after Korean Pop music therapy at SMAN 2 Kota Serang**

The research was conducted on students of class XI IPA 1-3 at SMAN 2 Kota Serang with 18 respondents. The results show that the mean stress level of respondents after Korean Pop music therapy is 14.39, indicating an average final score ranging from 14-15. According to the DASS-42 questionnaire used in this study, a score of 14 is categorized as normal, and a score of 15 is categorized as mild stress. Furthermore, most respondents experienced a normal stress level with 11 respondents (61.1%). This indicates a decrease in stress levels, starting from mild, moderate, and severe stress. Based on the researcher's observation, the decrease in stress levels in respondents occurred because of the comfortable and relaxed feelings generated while listening to Korean Pop music with a stable beat/rhythm, slow tempo, subtle and melodious tones.

This aligns with a study conducted by (Haryono, 2019) on the effectiveness of music therapy with Alquran murrotal in reducing academic stress levels in 10th-grade students at MAN 2

Yogyakarta, involving 54 respondents divided into control and experimental groups. The results of the study showed a decrease in academic stress levels. In general, music can influence individuals both physically and psychologically (Saarikallio & Erkkilä, 2017). Psychologically, music can make someone relax, reduce stress, create a sense of security, release feelings of joy and sadness, and help alleviate pain (Istighfana, 2019).

The results also show a standard deviation of 5.822, indicating a wide range of scores between respondents. This could occur due to internal factors, which emerge from the individual, such as personality traits, problem-solving approaches, coping mechanisms, attitudes in responding to previous stress, having long-term or chronic illnesses, experiencing puberty, and others. Additionally, there are external factors that come from outside the individual, such as parental divorce, family disharmony, differences of opinion among family members, economic disparities, conflicts with friends, an unsafe environment, traumatic events, and others (Reski Amelia, 2020).

All individuals experiencing stress will try to cope with stress, commonly known as coping (Thoma et al., 2013). Coping is the process by which an individual attempts to adapt to the perceived differences between demands and resources in a stressful situation. In coping, there are two strategies commonly used by individuals: problem-focused coping and emotion-focused coping (Nasir, 2011).

### **Effectiveness of Korean Pop music therapy on adolescent stress levels at SMAN 2 Kota Serang in 2023**

Music is the expression of human feelings conveyed in the form of organized sound in melody or rhythm and possesses elements of beauty or harmony (Widhyatama, 2017). Music has various genres, including Korean Pop originating from South Korea. Korean Pop music has lyrics that address several issues related to society, such as mental health, politics, social issues, and more. Korean Pop music also includes genres with stable beats/rhythms, slow tempos, non-extreme tones, smooth melodies, and flowing sweet voices.

Music therapy can create a calming atmosphere and help teenagers relax their minds. Slow-tempo and beautiful melodies can stimulate relaxation responses in the body, reduce stress hormone levels like cortisol. Additionally, music can serve as a distraction tool, helping teenagers momentarily forget about problems or pressures they are facing.

The Benefits of Music Therapy for Adolescents include serving as a means of relaxation and stress reduction. Music therapy has the ability to create a calm and relaxing atmosphere. Through the selection of appropriate music genres, adolescents can experience a decrease in stress levels and tension. Slow rhythms and gentle melodies can help reduce stress symptoms. Music therapy is also effective for adolescents as a means of emotional expression, as music provides a medium for them to express their emotions. As a form of art, music allows them to convey feelings without words. This can help them understand and manage their emotions, reducing psychological pressure.

Another benefit of music therapy for adolescents is the improvement of concentration and focus. Certain types of music have the ability to enhance concentration and focus. This can assist adolescents in dealing with school tasks or work more effectively, reducing anxiety that can lead to stress. Additionally, music therapy is effective as a stimulus for creativity. It can stimulate the creativity of adolescents. The process of listening to and creating music can help them express themselves, discover creative potential, and experience personal satisfaction (Smith, 2019).

Based on the researcher's observation, the effect of listening to music can distract individuals or distance themselves from the problem at hand. During Korean Pop music therapy, respondents felt comfortable and calm. Music therapy has been clinically used to manage stress and other mental health issues, yielding positive outcomes (Gold et al., 2004; Maratos et al., 2008). Moreover, if individuals listen to music of a genre they like, it can bring happiness and a sense of joy, making them feel pleased. Additionally, some respondents admitted searching for lyrics and

meanings of the songs listened to in this study, acknowledging that the lyrics were highly related to what they were feeling at that time.

Music therapy has been proven to stimulate relaxation responses in the body, helping to reduce sympathetic nervous system activity. Calm and gentle music can stimulate parasympathetic nervous system activity, responsible for slowing heart rate and lowering blood pressure (Chanda & Levitin, 2013). Music can also stimulate activities in the hypothalamus, preventing the release of CRF (Corticotropin Releasing Factor) hormones that inhibit the release of ACTH (Adrenocorticotropin Hormone) in the pituitary gland, which can inhibit the production of thyroxine hormones in the body. Excessive thyroxine hormones can cause feelings of anxiety, fatigue, tension, and difficulty sleeping. Music considered enjoyable can enhance activity in brain regions associated with pleasurable experiences, leading to the release of dopamine neurotransmitters that can improve mood and alleviate stress (Salimpoor et al., 2011). During rest (relaxation), the body undergoes natural healing from within, hormone production in the body becomes balanced, and individuals experience mental freshness (Rosanty, 2014). Additionally, music therapy offers benefits such as lowering heart rate and blood pressure, relaxing tense muscles, relieving stress, and promoting a sense of calm, according to Wong, (2022). The results of this research are also consistent with a study conducted by Wahyuningsih et al., (2022) titled "The Effect of Korean Pop Music Therapy on Student Stress Levels at SMKN 1 Tangerang Regency." The research showed that Korean Pop music therapy had an effect in reducing student stress levels, as measured by pre-test and post-test evaluations. The Wilcoxon Rank Test in the experimental group yielded a p-value of 0.000 ( $p < 0.05$ ). This result indicates that Korean Pop music therapy had an effect on reducing student stress levels in the experimental group

## CONCLUSION

In conclusion, this study focused on the distribution of adolescent stress levels before and after Korean Pop music therapy at SMAN 2 Kota Serang. The initial findings revealed that adolescents commonly experience stress due to various factors, including academic demands, societal expectations, and personal issues. The research aligns with previous studies highlighting the prevalence of stress during the challenging period of early to late adolescence.

After implementing Korean Pop music therapy on a sample of class XI IPA 1-3 students, the results demonstrated a significant decrease in stress levels. The mean stress level post-therapy was 14.39, categorized as normal stress according to the DASS-42 questionnaire. This positive outcome echoes similar research on the effectiveness of music therapy in reducing stress among students. The study highlighted the potential of Korean Pop music therapy in creating a calming atmosphere, stimulating relaxation responses, and distracting individuals from stressors. The observations indicated that the therapeutic effects were attributed to the music's characteristics, such as stable beats, slow tempos, and melodious tones. Additionally, the respondents' active engagement with the lyrics and meanings of the songs contributed to a more profound impact on their emotional well-being.

Further research findings support the idea that music therapy, especially Korean Pop music therapy, can be a valuable intervention in managing stress levels among teenagers. Documented physiological responses, including stimulation of the parasympathetic nervous system and release of dopamine neurotransmitters, confirm the therapeutic benefits of music in promoting mental and emotional well-being. Furthermore, this research has implications such as the expansion of music's use as Complementary Therapy, where the positive results can encourage broader utilization of music, including K-pop, as complementary therapy in treating stress and anxiety disorders. This can broaden medical and psychological perspectives on the use of music in the context of mental health as a means of developing K-pop Music-Based Intervention Programs. Other implications include the development of intervention programs that use K-pop music as part

of stress management strategies. These programs can be designed for various groups, such as teenagers, students, or workers, taking into account their musical preferences.

In summary, the study affirms the effectiveness of Korean Pop music therapy in reducing adolescent stress levels at SMAN 2 Kota Serang. The positive outcomes suggest the potential for integrating music therapy as a holistic approach to address stress-related issues in educational settings, contributing to the overall well-being of students. Future research can explore the long-term effects and sustainability of such interventions in diverse cultural and educational contexts.

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