

Reducing Psychological Disorders Through Meditation with Natural Sound Music

Hirza Ainin Nur*

*Institut Teknologi Kesehatan Cendekia Utama Kudus, Indonesia

*Corresponding Author: hirza.aini23@gmail.com

Abstract. Many students experience psychological disorders, one of which is nursing students. Based on research results, it shows that nursing students have a higher risk of experiencing psychological disorders than other students. Psychological disorders that are often experienced are depression, anxiety and stress. This research aims to find out the comparison before and after the action of meditation with natural sound music and to see how the significance of the action is influenced. This research uses a pre-experimental type of research with a one group pretest-posttest design. Data were collected using observation sheets, meditation SOPs with natural sound music, and psychological disturbance instruments using the DASS-42 instrument. The sampling technique used was purposive sampling with inclusion and exclusion criteria. Inclusion criteria: nursing students who experience psychological disorders (depression, stress, anxiety). Exclusion criteria: students who refuse to be respondents, students who do not like natural sound music. The sample in this research was 16 people. The statistical analysis used is the Wilcoxon Signed Ranks Test. The research results show p-value: 0.000 for depression, 0.000 for anxiety, 0.000 for stress. It can be concluded that meditation with natural sound music can reduce psychological disorders in the form of depression, anxiety and stress in nursing students.

Keywords: [Psychological Disorders, Nursing Students, Meditation, Nature Sounds Music]

INTRODUCTION

Psychological disorders are a health problem that is highlighted nationally and globally. WHO reported that in 2016 as many as 35 million people suffered from depression, 60 million people suffered from bipolar disorder, 21 million were diagnosed with schizophrenia, and 47.5 million had dementia. In 2019, WHO said that there were 970 million people in the world experiencing mental disorders, the most common being anxiety disorders and depression (WHO, 2019). Basic Health Research (Riskesdas) in 2018 noted that 7% of the Indonesian population aged 15 years and over experienced emotional disorders, this health problem increased compared to 2013 at 1.7% (Depkes RI, 2019).

Psychological disorders are said to be conditions characterized by abnormal thoughts, feelings and behavior. There are many symptoms of psychological disorders that are often experienced by individuals, namely anxiety disorders, stress disorders, difficulty eating, sleep disorders, personality disorders, mood disorders, and depression (Kring Ann M & Johnson S., 2022; Wisnu Catur B.P., 2022). Psychological disorders often occur among health students. Research conducted by Rasheed et al in Saudi Arabia explained that health students were more susceptible to experiencing psychological disorders in the form of stress compared to non-health students (Al Rasheed et al., 2017). A mental health survey of health students using the SRQ-20 conducted by Hirza et al reported that 56.82% of students experienced mental health disorders. This research explains the mental health disorders experienced, namely frequent headaches (55.5%), no appetite (48.6%), difficulty sleeping (46.4%), easily scared (50.5%), anxiety, tense, worried (59.1%), difficult to think clearly (41.4%), difficult to make decisions (45%), easily tired (63.2%) (Hirza Ainin Nur et al., 2023).

Nursing students have a higher vulnerability to experiencing psychological disorders than other students, this is because nursing students are required to master all extensive learning material and master clinical practice skills in health services and providing nursing care. This condition causes students to experience difficulty sleeping, low self-esteem and uselessness, difficulty concentrating, reduced appetite, and complaints of headaches during the lecture process (Azizah et al., 2023). Results of research conducted by Rasheed et al, their research comparing psychological disorders in the form of stress experienced by health students, showed that the number of stress incidents most experienced by nursing students was 59.09%, applied applications students were 54.35%, dental students were 50% (Al Rasheed et al., 2017). A study conducted by Elias de Oliveira et al in Rio de Janeiro stated that

55.3% of nursing students experienced general mental disorders and identified a relationship with alcohol consumption. The study explained that the results of the SRQ-20 questionnaire showed that the most frequently felt complaints were that 95.3% of nursing students felt nervous, tense or worried, 72.9% had difficulty making decisions, 60% lacked sleep, and 37% had difficulty making decisions. 6% lose interest in various things (de Oliveira et al., 2020).

The most common impacts of psychological disorders on students are anxiety and depressive disorders. At the extreme, people with depressive disorders may not be able to get out of bed or take care of themselves physically and people with certain anxiety disorders may not be able to leave the house or may have compulsive rituals to help relieve fears (Masyah, 2020). Psychological disorders can also result in reduced quality of life, use of psychoactive substances, psychotic disorders, and suicide (Appleby, 2021; Ravens-Sieberer et al., 2020). Apart from that, psychological disorders in students result in decreased academic achievement, decreased learning achievement abilities, decreased problem solving abilities, impaired memory (B & Hamzah, 2020). The negative impacts caused trigger various health problems including depression and suicide (Chae Woon, 2020).

The many negative impacts resulting from psychological disorders should be preventable if individuals know and carry out appropriate management when experiencing symptoms of psychological disorders. One complementary therapy that can be used is meditation accompanied by natural sound music. Meditation is a way to shape oneself to achieve peace, harmony and a healthy soul by focusing on an object (Nurgiwati E., 2015). Meditation neutralizes tension, makes the central nervous system more organized, and balances biochemistry in the body (Arifin A., 2018). Music with natural sounds is a new type of music due to technological developments, a form of classical music with natural sounds. Natural sounds have variations in tempo, rhythm, melodic structure and slow rhythm which are very calming (Andhini F., 2016). Meditation accompanied by natural sound music is a natural process to shape oneself to achieve calm.

Research conducted by Ayunia et al showed that in the treatment group before meditation with natural sounds, the median stress score for nursing students was 11.00, namely mild stress, after meditation with natural sounds, the median score was 7.00, namely normal/no stress. In the control group the median pretest score was 10.00, namely mild stress, in the post test the median score was 9.50, namely mild stress. The statistical test results for the treatment group had a p-value of 0.000, in the control group the p-value was 0.137. This shows that meditation with natural sounds has an effect on reducing stress in nursing students (Ayunia et al., 2019). The study conducted by Antariksawan showed the same results, namely that meditation with natural sounds was effective in reducing stress in nursing students with a statistical test p-value of 0.000 (Antariksawan, 2023).

METHODS

The type of research used is pre-experimental with one group pretest-posttest design. This research uses one treatment group whose values will be measured before and after treatment. The aim of this research is to find out the comparison before and after the action of meditation with natural sound music and to see how the significance of the action is influenced. The act of meditation with natural sound music is carried out three times a week with a duration of 20 – 30 minutes. This research was conducted at ITEKES Ilmu Utama Kudus in April 2024. Data was collected using observation sheets, meditation SOPs with natural sound music, and psychological disturbance instruments using the DASS-42 instrument. The sampling technique used was purposive sampling with inclusion and exclusion criteria. Inclusion criteria: nursing students who experience psychological disorders (depression, stress, anxiety). Exclusion criteria: students who refuse to be respondents, students who do not like natural sound music. The sample in this research was 16 people. The statistical analysis used is the Wilcoxon Signed Ranks Test.

RESULTS AND DISCUSSION

A. Univariate

Univariate analysis in this research uses descriptive statistics. The results of the univariate analysis can be seen from the table below.

Table 1. Descriptive Statistics of Student Depression

	N	Minimum	Maximum	Mean	Std. Deviation
Pre test	16	13	22	16.13	3.030
Post test	16	8	18	12.44	3.265
Valid N	16				

Table 1 shows the average student depression score before intervention was 16.13, namely moderate depression. The average depression score after intervention was 12.44, namely mild depression. Depression is a state of mood disturbance which is manifested by feelings of deep sadness and loss of interest in things you like. Depression is said to be a form of mental health condition experienced by many people and often appears together with anxiety. Individuals are said to be depressed if for 2 weeks they show symptoms of sadness, hopelessness and feeling worthless (UNICEF, 2022). This study showed that there was a decrease in the depression scale in students, from moderate depression to mild depression. Symptoms of depression that many students experience are feeling pessimistic, hopeless, sad, losing interest, feeling worthless, and lacking enthusiasm in many things.

Table 2. Descriptive Statistics of Student Anxiety

	N	Minimum	Maximum	Mean	Std. Deviation
Pres test	16	8	19	13.50	4.050
Post test	16	4	16	9.81	4.199
Valid N	16				

Table 2 shows the average score for students' anxiety level before the intervention, namely 13.50 in the moderate anxiety category. The average student score after the intervention was 9.81 in the mild anxiety category. Anxiety is defined as an emotional condition that arises when a person experiences stress which is characterized by feelings of tension, feelings of worry, accompanied by physical responses (heart beating fast, blood pressure rising) (American Psychiatric Association, 2017). The results of this research show a decrease in the anxiety scale, from moderate anxiety to mild anxiety. In this study, students often experienced symptoms of anxiety, excessive worry, tension, frequent sweating without stimulus, trembling, and fear. Physical signs of anxiety are restlessness, nervousness, shaking, sweating a lot, dry mouth or throat, dizziness, palpitations, numbness, difficulty swallowing, stiff neck, cold and clammy hands, frequent urination, diarrhea, irritability (Kring Ann M & Johnson S., 2022).

Table 3. Descriptive Statistics on Student Stress

	N	Minimum	Maximum	Mean	Std. Deviation
Pre test	16	15	25	19.44	2.988
Post test	16	12	22	16.31	2.798
Valid N	16				

Table 1 shows that the average stress level score for students before the intervention was 19.44 in the moderate stress category. The average stress level score for students after the intervention was 16.31 in the mild stress category. This means that there is a decrease in student stress levels from moderate stress to mild stress. Stress is a physical and psychological response to pressures on individuals who are influenced by desires that they want to achieve but find it difficult to achieve something that is expected. In fact, stress can affect emotions, mental and behavior (Prasetyo, 2018). In this study, the symptoms of stress experienced by students were irritability, irritability,

difficulty sleeping, anxiety, irritability, nervousness, and impatience. Aryahi believes that there are several symptoms of stress including physical, emotional, intellectual and interpersonal symptoms. Physical symptoms include: Headaches, irregular sleep, neck tension, sweating, loss of appetite, and frequent shaking. Emotional symptoms include Anxiety, restlessness, sadness, mood swings, anger, nervousness, low self-esteem. Intellectual symptoms include: Difficulty concentrating, forgetfulness, confused thoughts, frequent daydreaming, difficulty making decisions, low motivation and learning achievement. Interpersonal symptoms include: sadness because they feel like they have lost someone they love, they easily blame others, they like to find fault with others, and they are selfish (Aryahi, 2016).

B. Bivariate

The results of the bivariate analysis in this study are as follows

Table 4. The Effect of Meditation with Natural Sound Music on Psychological Disorders in Students

Psychological Disorders	P-Value	Z
Depression	0,000	-3,581
Anxiety	0,000	-3,580
Stress	0,000	-3,580

Table 4 shows that the results of statistical tests using the Wilcoxon Signed Ranks Test are the p-value of the effect of meditation with natural sound music on depression 0.000, the p-value of the effect of meditation with natural sound music on anxiety 0.000, the p-value of the effect of meditation with natural sound music on stress 0,000. Psychological disorders are conditions characterized by abnormal thoughts, feelings and behavior. An individual's mental or psychological health can be disturbed due to various factors, namely biological, family, community and structural factors. Apart from that, there are other risk factors that can worsen a person's psychological condition, including poverty, violence, disability and inequality (WHO, 2019). Indriyanti explained that the factors that cause psychological disorders are increasingly varied and complex, namely genetic, environmental factors, life and traumatic experiences, as well as physical health conditions that can contribute to a person's psychological disorders (Indriyanti, 2024).

In this study, the causes of respondents experiencing psychological disorders were a lot of college assignments, lack of parental love, problems with friends, economic problems, protective parents, lots of homework, breakups, busy college schedules, lack of support from parents, divorce. parents, less supportive environment, not interested in the chosen major, do not understand the material explained. In line with the article written by Indriyanti, one of the causes of psychological disorders is traumatic experiences and environmental stressors. Traumatic experiences such as violence, loss, or natural disasters can trigger psychological disorders. Environmental stressors including poverty, family conflict, or social pressure also play a role in psychological development (Indriyanti, 2024). These results also agree with the study conducted by Wicaksono which stated that the psychological disorders experienced by students were due to academic and non-academic stressors. Academic stressors include lack of interest in the profession one is involved in, lack of motivation, wrong study habits, difficulty managing study time. Non-academic stressors such as personal problems, family problems, adjustment problems, domicile problems, economic problems (Wicaksono et al., 2023).

The results of this research show that there is an effect of meditation with natural sound music on psychological disorders, meaning that meditation with natural sound music can reduce depression, anxiety and stress. These results are in line with research conducted by Ayunia showing that there is an effect of meditation with sound in reducing student stress with a p-value of 0.000 (Ayunia et al., 2019). These results are also in line with a study conducted by Siregar which stated that there was an influence of anxiety between the intervention group and the control group after being given natural music therapy intervention to patients who were being given hemodialysis (Siregar et al., 2022).

When individuals focus their thoughts and meditate, the brain will work to send waves to the hormonal system, thereby producing hormones that can trigger calm. The hormones that will

decrease when meditating are the catecholamines adrenaline (EP), cortisol and norepinephrine (NE), which cause the heart rate to decrease, blood pressure to normalize, and breathing to become calmer. Listening to music will cause a decrease in Adrenal Corticotropin Hormone (ACTH) which produces feelings of joy, well-being and relaxation, thereby reducing anxiety and reducing stress and depression (Smith, 2014). Music with a theme of natural sounds such as waterfalls, the sound of rain, the sound of the wind and birds singing can provide a stimulus to the brain to produce endorphins, the results obtained are in the form of lowering blood pressure, heart rate, number of breaths, and can also control emotions or minimize the appearance of fear, stress and anxiety. When meditation therapy with natural sound music is given simultaneously, it provides maximum benefits, namely it can reduce psychological symptoms such as anxiety, depression and stress in nursing students.

CONCLUSION

Implementing meditation with natural sound music can reduce psychological symptoms (depression, anxiety, stress). The results of the Wilcoxon Signed Ranks Test showed a p-value of 0.000 for depression, anxiety and stress, which means there is a significant effect of meditation with natural sound music on psychological disorders in nursing students.

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