Health Research Journal, 190-195
Volume 2 Number 6 April 2025
URL: https://jurnal.cakrabirawamedia.com/index.php/hrj/

ISSN 2988-5469 (Print) 2988-3075 (Online)

The Impact of Music Therapy and Guided Imagery on Dysmenorrhea Pain

Debby Allo Langi
Puskesmas Dataran Isim
*Email: debbyallolangi@gmail.com

ABSTRACT

One effective way to reduce the level of dysmenorrhea pain is by using Guided imagery and music therapy. Guided imagery and music therapy is a new thing that has been tried in reducing dysmenorrhea pain in adolescents, using music with calm and soft melodies can also be used as therapy to relax the mind so that it can be used as therapy to reduce dysmenorrhea pain. This study aims to determine the effect of guided imagery and music therapy on dysmenorrhea pain. This study uses a pre-experimental design research type with a one group pretest-posttest design approach. The sample in this study was 27 female students consisting of grades 8 and 9. The sampling technique used a purposive sample technique, namely by determining certain criteria. Data were collected using a Numeric Rating Scale (NRS) pain measurement sheet, bivariate analysis using the Wilcoxon test with the help of SPSS. Based on the results of the study, it was found that the pre-test data contained 16 female students (59%) with moderate pain levels, and the post-test data obtained 19 female students (70%) with mild pain levels. From the results of the Wilcoxon analysis table, the sig value is 0.000 so that the hypothesis is accepted, meaning that there is an effect of guided imagery and music therapy on the level of dysmenorrhea pain.

Keywords: Dysmenorrhea Pain, Guided Imagery and Music, Menstruation

BACKGROUND

The first menstruation is usually experienced by women around the age of 10, but it can also be earlier or later. Menstruation is a sign that a woman is healthy and her reproductive system is working normally. So that menstruation is very important, especially for the health of a woman's reproductive organs. Menstrual pain in medical terms is called dysmenorrhea, is actually a common condition experienced by women who have menstruated (Purwanti, 2014).

Dysmenorrhea is an unpleasant pain in the lower abdomen before and during menstruation, often accompanied by nausea, forcing the sufferer to rest for several hours or days (Wiknjosastro, 2014). Dysmenorrhea occurs due to dysrhythmic contractions of the myometrium layer which displays one or more symptoms ranging from mild to severe pain in the lower abdomen, waist area and medial side of the thigh (Manuaba, 2010). So dysmenorrhea can be concluded as pain during menstruation that is felt in the lower abdomen and spreads to the waist and thighs.

Based on data from the World Health Organization (WHO) in 2017, the incidence of dysmenorrhea was 1,769,425 people (90%) of women who experienced dysmenorrhea with 10-16% experiencing severe dysmenorrhea. The incidence of dysmenorrhea in the world is very large, on average almost more than 50% of women experience it. The incidence of dysmenorrhea in Indonesia is also no less high compared to other countries in the world.

According to Proverawati & Misaroh (2012) in Indonesia the incidence of dysmenorrhea consists of 72.89% primary dysmenorrhea and 21.11% secondary dysmenorrhea and the incidence of dysmenorrhea ranges from 45-95% among women of productive age. Various factors have been identified to determine the risk factors associated with the incidence of dysmenorrhea, including age. The peak incidence of dysmenorrhea is in the age range from adolescence to adulthood, namely 15 to 25 years and will decrease after passing that age range. The causes of primary dysmenorrhea can vary, namely sports factors, age of menarche, length of menstruation. In addition to these factors, Maryam (2016) stated that a family history of dysmenorrhea is also one of the most influential factors in primary dysmenorrhea.

The results of a preliminary survey conducted by researchers at SMP Islam Sultan Agung, Kediri Regency on July 20, 2022. Of the total number of 50 female students in grades 8 and 9 who were observed, 27 students experienced dysmenorrhea pain and 23 did not experience dysmenorrhea pain. The students dealt with the pain in several ways, including using painkillers for 13 people, drinking herbal medicine for 2 people, and 7 of them by compressing and drinking warm water, while 5 others reduced menstrual pain by letting the pain go away on its own. Although they ignored the pain, they stated that the pain experienced during menstruation could interfere with daily activities, even 2 people did not go to school due to dysmenorrhea pain.

One effective way to reduce the level of dysmenorrhea pain is by using Guided imagery. Guided imagery is a technique that uses individual imagination with directed imagination to reduce stress (Patricia in Kalsum, 2012). Snyder & Lindquist (2002) define guided imagery as an intervention of the human mind and body using the power of imagination to obtain physical, emotional and spiritual affects. Guided imagery is categorized in mind-body medicine therapy by Bedford (2012) by combining guided imagery with mind meditation as a cross-modal adaptation. Imagination is a mental representation of an individual in the relaxation stage. Imagination can be done with various senses including visual, auditory, olfactory and tactile. Guided imagery and music therapy is a new thing that has been tried in reducing dysmenorrhea pain in adolescents, using music with calm and soft melodies can also be used as therapy to relax the mind so that it can be used as therapy to reduce dysmenorrhea pain.

Based on the explanation above, the researcher is interested in knowing "The effect of guided imagery and music therapy on dysmenorrhea.

METHODS

This study uses a pre-experimental design research type with a one-group pretest-posttest design approach. This study was conducted the sample in this study amounted to 27 female students consisting of grades 8 and 9. The sampling technique used a purposive sample technique, namely by determining certain criteria. Data were collected using the Numeric Rating Scale (NRS) pain measurement sheet, bivariate analysis using the Wilcoxon test with the help of SPSS.

RESULTS

Respondent Characteristics

Based on the research results obtained from 27 female students in grades 8 and 9 who experienced primary dysmenorrhea pain the respondents were mostly 15 years old with a total of 10 female students (37%). Based on the family history of experiencing primary dysmenorrhea pain it is known that most female students experience menstrual pain of 67% (18 female students) and there is no history of menstrual pain in the family.

Variable Characteristics

Based on the results of the study conducted on 27 female students in grades 8 and 9 who experienced primary dysmenorrhea pain it was found that most of the female students experienced moderate menstrual pain, namely 16 female students (59%).

Based on the results of the study conducted on 27 female students in grades 8 and 9 who experienced primary dysmenorrhea pain, it was found that most of the female students experienced a decrease in menstrual pain in the mild category after guided imagery and music therapy, namely 19 female students (70%).

Statistical Test Results

Table 1. Statistical test results

Test Statistics[b]	
	Post Test - Pre Test
Z	-4,235[a]
Asymp. Sig. (2-tailed)	,000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

Based on the results of the Wilcoxon analysis table, the sig value is 0.000 so that the hypothesis is accepted. So it can be concluded that there is an effect of guided imagery and music therapy on the level of dysmenorrhea pain.

DISCUSSION

Pain Level Before Guided Imagery and Music Therapy

Based on the research conducted, it is known that most female students experience moderate menstrual pain, namely 16 female students (59%). These results were obtained based on research data conducted using the NRS (numerical rating scales) observation sheet. A pre-test was conducted before the guided imagery and music therapy was given to determine the level of pain experienced by the respondents.

Family history is also a cause of pain experienced by respondents other than the cause of primary dysmenorrhea pain. Based on the history of pain in the family, it is known that from 18 students with no history of pain in their families, 11 students (61.1%) had moderate pain levels, 3 students (16.7%) had mild pain levels and 4 students (22.2%) had severe pain levels. Of the 9 students with a history of pain in the family, 5 students (55.6%) had a history of moderate pain, 3 students (33.3%) had severe pain and 1 student (11.1%) had a history of mild pain.

The results of this study are the same as those conducted by Nurhayati (2017) showing that the level of pain of respondents before (pre) therapy who experienced mild pain with a total of 10 students (18.5%), who experienced moderate pain as many as 28 students (51.9%) and respondents who experienced severe pain as many as 16 students (29.6%), so most respondents experienced moderate pain. Research conducted by Defiaroza et al (2021) the results of this study obtained data that the scale of dysmenorrhea pain commonly experienced by respondents, on average on a pain scale of 5.07 with the most frequent pain scale being 6 (Moderate Level). Research conducted by Susanti (2017) obtained a result of 5.89 which was in the moderate pain scale interval, with a median of 6.00 (moderate pain) and the most commonly felt pain was on a scale of 7 (severe pain).

Pain is an unpleasant experience, both sensory and emotional, associated with the risk or actual damage to body tissue (Andarmoyo, 2013). Menstrual pain (dysmenorrhea) occurs due to dysrhythmic contractions of the myometrium layer which displays one or more symptoms ranging from mild to severe pain in the lower abdomen, waist area and medial side of the thigh (Manuaba, 2010). So menstrual pain (dysmenorrhea) can be concluded as pain during

menstruation which is felt in the lower abdomen and spreads to the waist and thighs. Based on the conditions in the field, the respondents first measured dysmenorrhea, they did not understand whether their pain was categorized as mild, moderate or severe.

Pain Level After Guided Imagery and Music Therapy

Based on the research after the therapy was conducted, it was found that most of the female students experienced a decrease in menstrual pain with a mild category, namely 19 female students (70%) experienced mild pain, 3 female students (11%) experienced moderate pain and 5 female students (19%) did not experience pain. Based on the cross-tabulation table between the history of menstrual pain in the respondent's family and the level of pain after therapy, it was found that from 18 female students with no history of pain in their family, 14 female students (77.8%) had mild pain, 3 female students (16.7%) had no pain and 1 female student (5.6%) had moderate pain. Of the 9 female students with a history of pain in the family, 5 female students (55.6%) had a history of mild pain, 2 female students (22.2%) had moderate and 2 female students (22.2%) had no pain.

Based on these results, it is known that none of the respondents experienced severe pain and even some respondents no longer felt pain due to menstruation. These results were obtained based on research data conducted using the NRS (numerical rating scales) observation sheet. The posttest was conducted after guided imagery and music therapy was given to determine the level of pain experienced by the respondents.

This study is the same as that conducted by Nurhayati (2017) which showed that the level of pain of respondents after (post) guided imagery who experienced mild pain became 23 students (42.6%), those who experienced moderate pain became 31 students (57.4%) and respondents who experienced severe pain were gone. This shows that providing guided imagery for dysmenorrhea pain is very effective. Research conducted by Defiaroza et al (2021) the results of this study obtained data that the scale of dysmenorrhea pain that respondents usually experience, the average level of dysmenorrhea pain of respondents after carrying out guided imagery and music actions was 3.86. Supported by research by Susanti (2017) with the results of a mild pain scale, with a median of 3.00 (mild pain) and the most pain felt was on a scale of 3.00 (mild pain). In the treatment group after dysmenorrhea gymnastics, the lightest pain felt was on a scale of 0 (no pain), the most severe pain felt was on a scale of 7 (severe pain).

Guided imagery and music therapy was performed on respondents to reduce pain experienced during menstruation. This therapy was successful and went as expected, namely a decrease in pain experienced before and after therapy was given. Guided imagery and music therapy is a combination of guided imagery therapy accompanied by calming music. Guided imagery and music therapy is a new thing that has been tried in reducing dysmenorrhea pain in adults, using music with calm and soft melodies can also be used as therapy to relax the mind so that it can be used as therapy to reduce dysmenorrhea pain.

Differences in Pain Levels Before and After Guided Imagery and Music Therapy

Based on the results of the Wilcoxon analysis table, the sig value is 0.000 <0.05 so that the hypothesis is accepted. So it can be concluded that there is a difference in the influence of guided imagery and music therapy on the level of dysmenorrhea pain. The difference in the level of pain experienced by respondents before and after guided imagery and music therapy obtained satisfactory results.

Based on cross-tabulation of the level of pain of students before and after guided imagery and music therapy, it is known that before therapy, 5 students (71.4%) of the total 7 students who experienced severe pain, after therapy experienced a decrease in the level of mild pain. And from 16 students with moderate pain levels before the intervention, 5 students (31.1%) of them experienced a decrease to no pain after therapy.

The results of the study above prove that the provision of guided imagery and music shows effective results in overcoming dysmenorrhea pain. This study is in line with the research conducted by Nurhayati (2017). This can be seen from the results of the paired t-test on the provision of guided imagery, the results obtained were that Sig (2-tailed) showed a p value <0.001 (p-value <0.05) and t table 15.34 so that the results obtained that H0 was rejected and Ha was accepted, these results indicate that there is a significant difference between pre and post pain. Previous research conducted by Defiaroza et al (2021) with statistical test results obtained a p value = 0.021, it can be concluded that there is a significant difference between the level of pain before and after guided imagery and music actions.

The results of this study revealed that guided imagery and music actions can reduce the level of dysmenorrhea pain in adolescents. According to Beebe & Wyatt (in the journal Defiaroza et al, 2021) guided imagery and music actions on the regulator and cognator subsystems are input components that come from outside the individual. In the regulator subsystem GIM (guided imagery and music) affects internal processes in the body by stimulating the descending control system to produce endorphins. The endorphins produced are output components in the regulator subsystem. The function of endorphins is to inhibit the transmission of substance P which is a neurotransmitter that affects sensitivity to pain. In the cognator subsystem GIM (guided imagery and music) makes the patient's emotions positive by imagining pleasant things, this will make dysmenorrhea patients calm and relaxed and not focus on pain.

Guided imagery therapy is a relaxation method to imagine or imagine places and events related to a pleasant sense of relaxation. Guided imagery techniques are used to manage coping by imagining or imagining something that begins with a general relaxation process, namely asking the client to slowly close their eyes and focus on their breath, clients are encouraged to relax, empty their minds and fill their minds with images to create peace and calm. While music therapy is a process that combines the healing aspects of music itself with conditions and situations, both physical or body, emotions, mental, spiritual, cognitive and social needs of a person (Natalia 2013).

Guided imagery and music therapy stimulates the descending control system and affects the production of endorphins and has a relaxing effect on the body. According to (Guyton & Hall, 2016) endorphins as ejectors of the feelings of relaxation and calm that arise. These substances can cause an analgesic effect which ultimately eliminates pain neurotransmitters in the perception center so that the effect that can appear is reduced pain. The guided imagery and music therapy process in the field is carried out with 3 therapies with 2 meetings, the first session measures dysmenorrhea pain with an observation sheet (pretest) then given therapy, the second therapy respondents do themselves at home with guidance from researchers and the second meeting is given the third therapy and the second dysmenorrhea pain measurement is carried out (posttest) to determine the decrease in pain levels after guided imagery and music therapy. After guided imagery and music therapy was carried out on all respondents, satisfactory results were obtained because there was a decrease in the level of dysmenorrhea pain experienced by respondents. Guided imagery and music therapy is very effective in reducing dysmenorrhea pain, because it has a calming effect so that it provides a relaxing effect.

CONCLUSION

Based on the results of the study conducted, several conclusions can be drawn. First, the pre-test data show that most female students experienced moderate menstrual pain, with 16 students (59%) reporting this level of discomfort. Among the 18 respondents who did not have a family history of menstrual pain, 11 students (61.1%) still reported moderate levels of pain. Second, the post-test data indicate a decrease in the level of menstrual pain, with the majority of female students 19 individuals (70%) experiencing mild pain. Furthermore, based on a cross-tabulation between family history and post-therapy pain levels, 14 out of 18 students (77.8%) with no family history of menstrual pain reported only mild discomfort after receiving therapy. Lastly, the Wilcoxon analysis revealed a significance value of 0.000, which is less than 0.05, indicating that the hypothesis is accepted. Therefore, it can be concluded that guided imagery and music therapy have a significant effect on reducing the level of dysmenorrhea pain.

REFERENCES

Andarmoyo.(2013). Konsep dan Proses Keperawatan Nyeri. Yogayakarta: Ar-ruzz Media.

Bedford, S., (2012). Formative Peer and Self Feedback as A Catalyst for Change Within Scienece Teaching. Journal of Chemistry Education Research and Practice. 9 (1), 80-92.

Defiaroza, Yessi Fadriyanti, E. Y. (2021). Efektivitas Modifikasi Guided Imagery and Music (Gim) dengan Intensitas Nyeri Dismenore (Nyeri Haid). Jurnal Kesehatan Medika Saintika, 12, 37–42.

Guyton, A. C., & Hall, J. E. (2016). Fisiologi Kedokteran. Edisi, 11.

Kalsum. (2012). Pengaruh teknik guided imagery terhadap penurunan tingkat kecemasan pada klien wanita dengan gangguan tidur (insomnia) usia 20 – 25 tahun di kelurahan Ketawanggede kecamatan Lowokwaru Malang.

Manuaba, I.G.B. (2010). Ilmu kebidanan dan penyakit kandungan dan Keluarga Berencana Untuk Pendidikkan Bidan. Jakarta: EG.

Maryam, S. (2016). Gizi dalam Kesehatan Reproduksi. Jakarta: Salemba Medika.

Nurhayati, Y. (2017). Efektivitas Pemberian Guided Imagery terhadap Nyeri Disminore pada Remaja di SMPN III Colomadu Karanganyar. Jurnal Kesehatan Kusuma Husada, 001, 62–67.

Proverawati, Misaroh, (2012). Menarche: Menstruasi Pertama Penuh Makna. Yogyakarta: Nuha Medika.

Purwanti, (2014). Faktor - Faktor Yang Berhubungan Dengan Kejadian Dismenore Pada Siswi Kelas X di SMK NU Ungaran.

Snyder, M. & Lindquist, R., (2002). Complementary/alternative therapies in nursing, (4th ed). New York: Springer Publishing CompanySugiyono. 2012. Statistika Untuk Penelitian. Bandung : Alfabeta.

Susanti, L. (2017). Pengaruh senam dismenore terhadap penurunan dismenore pada mahasiswi tingkat ii keperawatan di stikes bhakti husada mulia madiun tahun 2017. Skripsi. Madiun. Stikes Bhakti Husada Mulia Madiun. Prodi S1 Keperawatan.

WHO. (2014). The sexual and reproductive health of younger adolescents.

Wiknjosastro, H., Saifuddin, A. B., Rachimhadhi, T. (2014). Ilmu Kebidanan. Edisi IV. Cetakan ke-4. Jakarta: Bina Pustaka Sarwono Prawirohardjo.