



The Effectiveness of Emotional Freedom Technique (EFT) Therapy in Reducing Dysmenorrhea Pain Scale in Adolescents in Gampong Peunalom 2 Tangse, Pidie Regency

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ABSTRACT

Dysmenorrhea has an impact on disruption of daily activities in adolescents caused by menstrual pain. One way to reduce pain can be done by applying emotional freedom technique (EFT), which can be said to be the psychological version of acupuncture therapy. EFT does not use needles, but rather aligns the body's energy system at the body's meridian points, namely by tapping with the fingertips. Research Objective: to determine the effectiveness of EFT therapy in reducing the pain scale of dysmenorrhoea in adolescents in Gampong Peunalom 2 Tangse, Pidie Regency. Research methodology: this research is quasi-experimental with a "pretest – posttest control group" research design using the T-test technique. Population and Sample: The population in this study were young women in Gampong Peunalom 2 Tangse, Pidie Regency, namely 98 young women, while the sample was 10 people, with the sampling technique being purposive random sampling. This research was divided into two groups, namely the control group which was not given treatment and the experimental group which was given EFT therapy treatment. Research Results: The majority of dysmenorrhea pain levels before being given EFT therapy to teenagers in Gampong Peunalom 2 Tangse, Pidie Regency were in category 6 (moderate pain), the majority of dysmenorrhea pain levels after being given EFT therapy to teenagers in Gampong Peunalom 2 Tangse, Pidie Regency were in category 3 (mild), Conclusion: There are differences between the groups who received the intervention and those who did not. Suggestion: It is recommended that respondents add information about EFT therapy because this therapy is useful for reducing pain felt during menstruation.

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1. INTRODUCTION

Every individual has experienced pain to some degree, pain is the most common problem and everyone seeks health care. Individuals who experience pain definitely feel suffering and discomfort so they will look for solutions to relieve the pain they experience. Pain is subjective, where no individual feels pain the same as another individual (Setiana & Nuraeni, 2018).

Pain is a stressor that can cause stress and tension to which individuals can respond biologically

and behaviorally which causes physical and psychological responses. The physical response includes changes in general condition, face, pulse, breathing, body temperature, body posture, and if breathing becomes heavier it can cause cardiovascular collapse and shock, while the psychological response due to pain can stimulate a stress response which can reduce the immune system in inflammation, as well as inhibiting healing, a more severe response will lead to the threat of self-destruction (Corwin, 2018).

Menstruation that occurs in teenagers is a normal thing, but there are some teenagers who experience problems during menstruation. Various problems that arise during menstruation are gynecological problems that are often complained of by teenagers, such as menstrual irregularities, menorrhagia, dysmenorrhoea (painful menstruation), and other related symptoms. The results of research from the Center for Information and Counseling on Adolescent Reproductive Health (PIK-KRR) in Indonesia in 2011 showed that the incidence of dysmenorrhoea was 72.89% (Proverawati, 2019).

Dysmenorrhea not only causes disruption of activities but also has physical, psychological, social and economic impacts. Sulastri (2006) reported that complaints of dysmenorrhoea had an impact on disrupting daily activities in teenagers, such as causing absences from school for 3 days a month and resulting in decreased concentration in class. Adolescents with severe dysmenorrhea had low grades (6.5%), decreased concentration (87.1%) and were absent from school (8.6%) (Tangchai et al., 2019).

In general, the treatment of dysmenorrhea pain in adolescents is divided into two categories, namely pharmacological and non-pharmacological approaches. Non-pharmacologically, these include warm compresses, deep breathing relaxation techniques, yoga, music, acupressure, imagination techniques, aromatherapy, and distraction (Potter & Perry, 2018). Emotional Freedom Technique (EFT) can be said to be the psychological version of acupressure therapy. EFT does not use needles, but rather aligns the body's energy system at the body's meridian points, namely by tapping with the fingertips (Tairas, 2018).

The Emotional Freedom Technique (EFT) technique is very useful for treating various biological and psychological problems, one of which is reducing pain. EFT therapy is carried out by tapping (light tapping) with the fingers on 18 meridian points of the body. Tapping on the meridian points can create vasodilation of blood and lymph vessels, and increase the baro receptor reflex response which influences the reduction of sympathetic nervous system activity and increases the activity of the parasympathetic nervous system (Roziika et al., 2020).

Research conducted by Literature (2016) Regarding the Effect of Emotional Freedom Technique (EFT) Therapy on Reducing Dysmenorrhea Pain Scale in Adolescents, the pretest pain results in experimental group adolescents were 95% moderate pain and the posttest pain scale was 100% mild pain, while the first test pain scale in control group adolescents was 70% moderate pain and the pain scale in test II was 70% moderate pain. The results of the Wilcoxon and Mann-Whitney statistical tests showed that the p value was <0.00, meaning that Emotional Freedom Technique (EFT) therapy had an effect on reducing the dysmenorrhea pain scale in adolescents. Based on the results, it can be concluded that there is an effect of EFT therapy on reducing the dysmenorrhoea pain scale in teenagers.

The incidence of dysmenorrhea in the world is very high. In the United States, the incidence of dysmenorrhoea in adolescent girls is reported to be around 92%. The incidence decreases with increasing age and increasing number of births. According to the results of a survey of 113 patients in family practice settings, the prevalence of dysmenorrhoea was 29-44%, while the prevalence and severity of dysmenorrhea were significantly lower in women who had given birth to at least one live baby or were termed parous women. Meanwhile at Firat University in Turkey, of 1266 students, 45.3% felt pain during menstruation, 42.5% sometimes had pain and 12.2% did not experience pain. According to a longitudinal study in Sweden, the incidence of dysmenorrhoea was 90% in women under 19 years of age and 67% in women aged 24 years (WHO, 2021).

In Indonesia, many women who experience dysmenorrhoea do not report it or visit a doctor. The shame of going to the doctor and the tendency to underestimate diseases often mean that data on sufferers of certain diseases in Indonesia cannot be absolutely certain. It could be said that 90% of

women in Indonesia have experienced dysmenorrhoea. Taking data from the Pidie District Health Service, data was obtained on the number of teenagers aged 10 to 19 years who were in the Working Area of the Tangse Health Center, Pidie District, as many as 5,130 people, consisting of 2,501 men and 2,629 women, while for Gampong Peunalom II there were 190 people. consisting of 91 men and 98 women (Pidie Health Office, 2022). The results of interviews with ten teenagers in Gampong Peunalom 2 Tangse, Pidie Regency showed that they experienced dysmenorrhea pain, there were 2 teenage girls who were absent from school or had to be sent home from school. Meanwhile, the results of interviews with 10 students who experienced dysmenorrhoea pain, 4 people had done compresses when the pain occurred, 2 people used anti-pain medication, and 4 people said they had never used medication or other measures, 4 out of 10 teenagers who experienced pain in during menstruation said he couldn't concentrate while studying.

2. RESEARCH METHOD

Research conducted by Literature (2016) Regarding the Effect of Emotional Freedom Technique (EFT) Therapy on Reducing Dysmenorrhea Pain Scale in Adolescents, the pretest pain results in experimental group adolescents were 95% moderate pain and the posttest pain scale was 100% mild pain, while the first test pain scale in control group adolescents was 70 % moderate pain and the pain scale in test II was 70% moderate pain. The results of the Wilcoxon and Mann-Whitney statistical tests showed that the p value was <0.00 , meaning that Emotional Freedom Technique (EFT) therapy had an effect on reducing the dysmenorrhea pain scale in adolescents. Based on the results, it can be concluded that there is an effect of EFT therapy on reducing the dysmenorrhoea pain scale in teenagers. The research design used in this research is quasi-experimental research with a "pretest - Posttest Control Group Design" research design which uses a cause and effect relationship by involving two groups, namely the experimental group as the subject group and the control group as the object group. The subject group was observed before the intervention and then observed again after the intervention (Nursalam, 2018).

3. RESULTS AND DISCUSSIONS

Table .1
Distribution of Pretest, Posttest and Control Group Gain Scores Based on Pain Scale

Sample	Pretest (X)	Posttest (Y)	Gains (d) = (X - Y)
1	4	3	1
2	6	6	0
3	5	5	0
4	6	6	0
5	6	6	0
6	4	4	0
7	6	6	0
8	6	5	1
9	4	4	0
10	6	6	0
Σ	53	51	2

To find out the deviation for each subject, first look for the mean of the difference between the pretest and posttest with the following formula. From the calculation above, it is known that the mean of the pretest and posttest is 6. Then look for the sum of the squared deviations for each subject (Σx^2d) which is presented in the following table:

Table .2
Sum of Squared Deviations of the Control Group

Sample	$Xd = (d-Md)$	d	X^2d
1	0.8	1	0.64

Sample	$X_d = (d - M_d)$	d	X_{2d}
2	-0.2	0	0.04
3	-0.2	0	0.04
4	-0.2	0	0.04
5	-0.2	0	0.04
6	-0.2	0	0.04
7	-0.2	0	0.04
8	0.8	1	0.64
9	-0.2	0	0.04
10	-0.2	0	0.04
Σ	0	2	1.60

Based on the table above, the data can be seen as follows: $n = 10$ $\Sigma d = 2$ $M_d = 0.2$ $\Sigma x_{2d} = 1.60$ $dk = 10 - 1 = 9$ so the value of t is; Look for t_{table} with $\alpha = 0.05$ and $dk = 10$; $t(0.95)_{10} = 1.812$. If $t_{hitung} = 2 > t_{table} = 1.812$. Thus, there is a significant average difference between the pretest and posttest results. Based on the calculations above, it is obtained $t_{hitung} = 2$ whereas $t_{table} = 1.812$. So it can be concluded that $t_{hitung} > t_{table}$, then it means that H_a is accepted and H_o is rejected, namely that there is a difference in the distribution of control group respondents based on the pain scale:

Table.3
Distribution of Pretest, Posttest and Gain Scores for the Experimental Group Based on the Pain Scale

Sample	Pretest (X)	Posttest (Y)	Gain (d) = (X - Y)
1	6	2	4
2	4	3	1
3	6	3	3
4	6	3	3
5	4	1	3
6	6	2	4
7	5	3	2
8	6	2	4
9	5	2	3
10	5	3	2
Σ	53	24	29

To find out the deviation for each subject, first look for the mean of the difference between the pretest and posttest with the following formula; From the calculation above, it is known that the mean of the pretest and posttest is - 1.47. Then look for the sum of the squared deviations of each subject (Σx_{2d}) which is presented in the following table:

Table.4
Sum of Squared Deviations of the Experimental Group

Sample	d	$X_d = (d - M_d)$	X_{2d}
1	4	1.1	1.21
2	1	-1.9	3.61
3	3	0.1	0.01
4	3	0.1	0.01
5	3	0.1	0.01
6	4	1.1	1.21
7	2	-0.9	0.81
8	4	1.1	1.21
9	3	0.1	0.01
10	2	-0.9	0.81
Σ	29	8.8	8.90

Based on the table above, the data can be seen as follows: $n = 10$ $\Sigma d = 29$ $Md = 2.9$ $\Sigma x^2d = 8.90$ $dk = 10 - 1 = 9$ so the t value is; Look for t tabel with $\alpha = 0.05$ and $dk = 10$; $t(0.95)_{10} = 1.812$. If $t_{hitung} = 96,6 > t_{tabel} = 1.812$. Thus, there is a significant average difference between the pretest and posttest results. Based on the calculations above, it is obtained $t_{hitung} = 96.9$ where $t_{tabel} = 1.812$. So it can be concluded that $t_{hitung} > t_{tabel}$, then it means that H_a is accepted and H_o is rejected, namely that there is a difference in the distribution of control group respondents based on the pain scale.

3.1. The effectiveness of Emotional Freedom Technique (EFT) therapy in reducing the pain scale of dysmenorrhoea in adolescents in Gampong Peunalom 2 Tangse, Pidie Regency.

Based on control group calculations, it was obtained $t_{hitung} = 2$ where $t_{tabel} = 1.812$. So it can be concluded that $t_{hitung} > t_{tabel}$, then it means that H_a is accepted and H_o is rejected, namely that there is a difference in the distribution of control group respondents based on the pain scale. Based on the calculations of the experimental group, it was obtained $t_{hitung} = 96.9$ where $t_{tabel} = 1.812$. So it can be concluded that $t_{hitung} > t_{tabel}$, then it means that H_a is accepted and H_o is rejected, namely that there is a difference in the distribution of control group respondents based on the pain scale.

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The emotional freedom technique (EFT) mechanism for reducing the pain scale is by combining the physical effects of meridian nursing with the mental effects of focusing on the pain that is felt. In stimulating the body's meridian points, EFT uses the tips of the fingers to make light taps on the body's meridian points. Tapping (tapping) on meridian points will send kinetic energy to the energy system and release obstacles that block the flow of energy. So the pain felt will be reduced.

Pressure on the body's meridian points will stimulate the body to release endorphins and monoamines, namely two compounds that function to control pain and stimulate relaxation. Emphasis on the body's meridian points aims to stimulate sick or disturbed organs. In the hands there are nerves that act as relaxation points. A relaxed point on the hand will send a kind of shock wave or current to the brain. These waves will be received by the brain and transmitted to the body organs that are experiencing problems. When a meridian point is pressed, the propagating waves will destroy the blockage so that blood flow returns smoothly. If the energy in the meridian pathways runs smoothly, it means the body is in healthy condition (Zainuddin, 2021).

This is in accordance with the gate control theory, namely the intensity of pain is reduced by blocking the transmission of pain at the gate (gate) and the endorphin theory, namely reducing pain. Pain intensity is influenced by increasing levels of endorphins in the body. By providing therapy, it can stimulate the A beta fibers which are found in abundance in the skin and respond to light tapping on the skin so that impulses are transmitted more quickly. Providing this stimulation causes the dominant impulse input to come from A beta fibers so that the gates close and pain impulses cannot be transmitted to the cerebral cortex to be interpreted as pain (Guyton, 2019).

Apart from that, the descending control system will also react by releasing endorphins which are the body's natural morphine so that it blocks the transmission of pain and the perception of pain does not occur, so that the intensity of the pain felt decreases. (Perry & Hall, 2020). Research conducted by Literature (2016) Regarding the Effect of Emotional Freedom Technique (EFT) Therapy on Reducing Dysmenorrhea Pain Scale in Adolescents, the pretest pain results in experimental group adolescents were 95% moderate pain and the posttest pain scale was 100% mild pain, while the first test pain scale in control group adolescents was 70 % moderate pain and the pain scale in test II was 70% moderate pain. The results of the Wilcoxon and Mann-Whitney statistical tests showed that the p value was < 0.00 , meaning that EFT therapy had an effect on reducing the dysmenorrhea pain scale in adolescents.

Based on the results, it can be concluded that there is an effect of EFT therapy on reducing the dysmenorrhoea pain scale in teenagers.

4. CONCLUSION

There is no effect of knowledge on BSE behavior among women of childbearing age (WUS) in Bandar Baru sub-district, Pidie Jaya district with a P-value of $0.194 > 0.05$ (α value). There is an influence of attitudes on BSE behavior in women of childbearing age (WUS) in Bandar Baru sub-district, Pidie Jaya district with a P-value of $0.002 < 0.05$ (α value). There is an influence of skills on BSE behavior in women of childbearing age (WUS) in Bandar Baru sub-district, Pidie Jaya district with a P-value of $0.037 < 0.05$ (α value). It is hoped that future researchers will be able to conduct research with more and more specific variables than this research. It is hoped that women of childbearing age (WUS) will be more open about doing BSE so that they are not embarrassed, and get used to BSE. WUS must also be more productive in seeking information about breast health problems and increasing awareness about BSE and visiting health services if they become aware of breast abnormalities.

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