The Effect of Acupressure Therapy on Spleen 6 Sanyinjiao Point to Reduce Dysmenorrhea Pain in Nursing Student

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A B S T R A C T

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Dysmenorrhea

Dysmenorrhea is painful menstruation until it can interfere with daily activities. Menstrual pain is pain in the lower abdomen or in the backs bottom. One non pharmacological treatment, namely with acupressure therapy on the spleen point 6 sanyinjiao. Acupressure is te development of massage therapy. Acupressure can improve blood circulation in the body and can secrete endorphin hormone that controls feelings of stress so it does not happen menstrual pain caused by stress. Research purposes to determine the effect of acupressure therapy on the spleen point 6 sanyinjiao to decrease dysmenorrhea. Pre Experimental Design The study design with the design of The One group pretest-posttest design. The experiment was conducted April 11 to April 23 at the Abdi Hutama STIKes Husada Tulungagung. Nursing student population of all S1. Mechanical sampling using quota sampling and obtained a sample of 30 respondents. The data were collected by measuring the pain scale before and after therapy acupressure on the spleen point 6 Sanyinjiao. Instruments pieces of interviews and observations, processed by the editing, coding, tabulating, and analyzed with statistical test Paired t Tes. The results obtained with a value of $P = .000$ $\alpha = 0.05$ so that Ho refused and H1 accepted meaning Acupressure There Therapy Effect On the Spleen Point 6 Sanyinjiao To Decrease Dysmenorrhea In Mahasiswa S1 Nursing in STIKes Hutama Abdi Husada Tulungagung 2016. This study showed that after therapy acupressure on point 6 Sanyinjiao spleen is no decrease in the level of pain, therefore it is recommended for women who are experiencing menstrual pain to perform acupressure therapy on the spleen point 6 Sanyinjiao.

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I. INTRODUCTION

In adolescent women, maturity of reproductive organs is marked by the arrival of menstruation(Menarche) (MOH, 2006). Some problems can be experienced every month during menstruation, one of which is dysmenorrhea (Anurogo D and Wulandari A, 2011). Dysmenorrhea is menstrual pain before or during menstruation. This disorder usually occurs within 24 hours before the occurrence of menstrual bleeding and can be felt for 24-36 hours. The cramps are mainly felt in the lower abdominal area spread to the back or surface in the thigh.

In the United States, the incidence of dysmenorrhea in adolescent girls is reported to be about 92%. This incident decreased with age. In epidemiological studies in adolescent populations in the United States, Klein and Lift reported a 59.7% dysmenorrhea prevalence. Of those who complained of pain, 12% weight, 37% moderate and 49% mild. Conditions in Indonesia, More women who experience dysmenorrhea do not report and visit the doctor, but may be said 90% of women in Indonesia have experienced dysmenorrhea (Anurogo D and Wulandari A, 2011). Based on preliminary study conducted at STIKes Hutama Abdi Husada Tulungagung nursing S1 program of 10 female students 8 of them experiencing dysmenorrhea. From that number two female students had...
dysmenorrhea with severe pain, with painful headaches, severe headache, vomiting, diarrhea and very disturbing daily activities, as many as 4 female students had moderate pain and 2 had mild dysmenorrhea with mild symptoms that disappeared without treatment.

The feeling of pain experienced during menstruation affects daily activities, one of which can make the woman unable to demonstrate while studying and having to sleep. Pain also often coincides with the feeling of nausea, headache, persaan want to faint, and irritability (Mansjoer, 2009). To overcome the pain during menstruation there are several ways that are pharmacologically like nonsteroidal anti-inflammatory drugs NSAIDs. In addition to treatment with pharmacology there are also non-pharmacological treatments such as relaxation techniques, hypnotherapy, acupuncture and acupressure (Efriyanthi, 2015). Acupressure is a derivative of the science of acupuncture. Techniques in this therapy using the fingers instead of needles (Hartono, 2012). Massage is done at acupuncture points in certain parts of the body to eliminate complaints or illness suffered (Sukanta, 2008).

Acupressure is more acceptable to adolescents than other techniques such as acupuncture that are more traumatic. Acupressure therapy is empirically proven to help increase endorphin hormone of the brain that can naturally help offer pain during menstruation (Hartono, 2012). The point used for the treatment of dysmenorrhea is the point that is usually also used to overcome gynecological problems, one of which spany 6 sanyinjiao located 3 cun above malleolus internus (Hartono, 2012). It is believed that at this point it is useful for strengthening the spleen, kidneys, liver as well as improving blood circulation. This 6 sanyinjiao spleen point effectively decreases the intensity of menstrual pain and duration of menstrual pain in adolescents with dysmenorrhea. This research is using selecting template. This template has been tailored for output on the A4 paper size. Maintaining the integrity of the specifications. The head margin in this template measures proportionately more than is customary.

II. METHOD

This research was conducted on 11 April - 23 April in STIKes Hutama Abdi Husada Tulungagung. This research uses Pre Experimental Design method, with The One Group Pretest-Posttest Design design. This research is done by giving pretest before intervention, after intervention, then posttest (final observation) (Hidayat, 2008). The affecting variable is acupressure at spleen point 6 sanyinjiao and the affected variable is dysmenorrhea. Population and sample in this research is S1 nursing student STIKes Hutama Abdi Husada Tulungagung. The number of population in this study is 232 female students, while the sample taken as many as 30 female students. Sampling using quota sampling technique.

In this research tool or data collection method using interview sheet and pain scale observation that is Numerical Rating Scales (NRS). Data analysis using Paired t Test.

III. RESULTS AND DISCUSSION

The following will present description of data in table form consisting of frequency frequency of respondents based on day-to-day pain attacks, Distribution of birth history frequency of respondents, Distribution of Stress frequency of respondents,

<table>
<thead>
<tr>
<th>Pain Attack day to-</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>11</td>
<td>37%</td>
</tr>
<tr>
<td>Day 2</td>
<td>19</td>
<td>63%</td>
</tr>
<tr>
<td>Amount</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the above table shows that of 30 respondents who experienced menstrual pain on the first day amounted to 19 respondents (63%), while the remaining 11 respondents (37%) experienced menstrual pain on the second day.
Table 3 Distribution of birth history frequency of respondents

<table>
<thead>
<tr>
<th>Birth History</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>Amount</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the above table shows that of 30 respondents, all have no history of childbirth.

Table 4 Distribution of Stress frequency of respondents

<table>
<thead>
<tr>
<th>Stress</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>18</td>
<td>60%</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>40%</td>
</tr>
<tr>
<td>Amount</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the above table shows that from 30 respondents, the number of respondents who experienced stress during menstruation was 18 (60%) and the remaining 12 (40%) did not experience stress during menstruation.

Table 5 The descriptions of dysmenorrhea level variables prior to acupressure therapy at spleen point 6 sanyinjiao

<table>
<thead>
<tr>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>3</td>
<td>8</td>
<td>4.63</td>
<td>1.189</td>
</tr>
</tbody>
</table>

The table shows that of 30 respondents dysmenorrhea levels before treatment that is the minimum pain scale 3, maximum 8 and mean 4.63 are included in the category of moderate pain.

Table 6 The descriptions of dysmenorrhea level variables following acupressure therapy at spleen point 6 sanyinjiao

<table>
<thead>
<tr>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>1</td>
<td>6</td>
<td>3.23</td>
<td>1.278</td>
</tr>
</tbody>
</table>

Table 6 above shows that of 30 respondents dysmenorrhea levels after treatment of pain scale is minimum 1, maximum 6 and mean 3.23 are included in the category of mild pain.

Table 7 paired t test results on the effect of acupressure therapy on spleen point 6 sanyinjiao

<table>
<thead>
<tr>
<th>Menstrual Pain</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>30</td>
<td>4.63</td>
<td>1.189</td>
<td>10.592</td>
<td>0.000</td>
</tr>
<tr>
<td>After</td>
<td>30</td>
<td>3.23</td>
<td>1.278</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on table 7 shows that before the perpetration of respondents experienced menstrual pain with an average of 4.63 who belong to moderate pain category and after the treatment respondents experienced menstrual pain with an average of 3.23 are included in the category of mild pain with a value of P = 0.000 with \( \alpha = 0.05 \), means if the value of P <\( \alpha \) then H0 rejected H1.
accepted. Thus, there is an effect of acupressure therapy on spleen 6 sanyinjiao point to dysmenorrhea decrease in STIKes STIKes STIKes Hutama Abdi Husada Tulungagung students.

Based on table 5 shows that of 30 female students who became respondents in STIKes Hutama Abdi Husada Tulungagung in 2016 before acupressure therapy at spleen 6 sanyinjiao point of 30 respondents dysmenorrhea level that is the minimum pain scale 3, maximum 8 and mean 4.63 are included in the category of moderate pain.

Based on the theory of Dysmenorrhea is pain during menstruation until it can interfere with daily activities (Manuaba, 2006). Menstrual pain is in the lower abdomen or in the lower back resulting from the movement of the uterus squeezing (contraction) in an attempt to remove the lining of the uterine lining that is released (Faizah, 2007). This disorder usually occurs within 24 hours after the occurrence of menstrual bleeding and can be felt for 24-36 hours.

There are several factors that can cause the occurrence of menstrual pain include age, and history of childbirth. Age is a life span that can be measured by years. Age counted from birth to now. Age is one factor that affects one's health, one of which affects dysmenorrhea at the time a woman experiences menstruation. According to Anurogo D and Wulandari A (2011), with increasing age, someone more often experience menstruation so that the cervix increases width, so that when the age increases the occurrence of menstrual pain is rarely found. This is evidenced in table 1.1 showed that 30 respondents who experienced menstrual pain more at the age of 19 years with the number of 11 respondents (37%) compared with age 20 (8 respondents / 27%), 21 (7 respondents / 23%) , and 22 (4 respondents / 13%). Thus from the results of this study researchers believe that a person with increasing age then the cervix will increase in width, this is because someone who has older age has experienced more menstruation than at a younger age.

Viewed from birth history factors according to Anurogo D and Wulandari A (2011) that women who have given birth usually cause the cervix to widen so that the pain of menstrual pain is reduced even disappear. This is evidenced in table 1.3 who experienced menstrual pain all 30 respondents had never given birth. Thus the researchers argue that a person who has never given birth will more often experience dysmenorrhea than in who has never given birth because the cervix has not widened so that still cause pain during menstruation.

Menstrual pain peaked within 24 hours and after the 2nd day will disappear because after 2 days prostaglandin production will decrease, thus decreasing uterine muscle contraction (Tamsuri, 2007). And in the next day prostaglandin hormone will decrease and decrease uterine muscle contraction, so that menstrual pain is felt will be reduced. This is in accordance with the results of the study in Table 1.2 showed that 30 respondents (19%) suffered from moderate pain on day 1, while the remaining 11 respondents (37%) experienced menstrual pain on the 2nd day. From the results of research and in accordance with the above theory we conclude that menstrual pain will arise on the first day and will decrease in the next day due to decreased production of prostaglandin hormone.

Based on table 6 shows that of 30 female students who became respondents in STIKes Hutama Abdi Husada Tulungagung 2016 after acupressure therapy at the spleen point 6 sanyinjiao respondents dysmenorrhea level after treatment that is the minimum pain scale 1, maximum 6 and mean 3.23 are included in the category of mild pain.

Acupressure is a development of massage therapy that goes along with the development of acupuncture because acupressure massage technique is derived from the science of acupuncture. Techniques in this therapy using the fingers instead of needles (Hartono, 2012). Massage is done at acupuncture points in certain parts of the body to eliminate complaints or illness suffered (Sukanta, 2008). The point used for the treatment of dysmenorrhea is the point that is usually also used to overcome gynecological problems, one of which is the spleen point 6 sanyinjiao. This point is 3 cun above the internal malleolus (Hartono, 2012) or the inner ankle (Sukanta, 2008). Acupressure believes that the spleen point 6 sanyinjiao is useful to strengthen the spleen, kidneys, liver as well as improve blood circulation in the body (Sukanta, 2008). Treatment of dysmenorrhea usually with the administration of analgesic drugs (pain relievers). Painkillers are now of a great variety, ranging from the only suppressing pain to those having antiprostaglandin and non steroidal effects. However, based on theoretical studies to date painkillers have not been safer if drunk in a long time. Though the need for the use of this drug certainly in a long time. Too much medicine is certainly not good for the kidneys.
So researchers can conclude that non-pharmacological therapy in this thoroughly acupressure at the point spleen 6 sanyinjiao have the benefits in accordance with the theory that is to strengthen the spleen, kidneys, liver and improve blood circulation in the body so it can be used as an alternative to reduce dysmenorrhea.

Based on the result of paired t test statistic test obtained $P = 0,000$ with $\alpha = 0,05$, it means if value $P < \alpha$ then $H_0$ rejected $H_1$ accepted. Thus, there is an effect of acupressure therapy on spleen 6 sanyinjiao point to decrease in dysmenorrhea in STIKes Hutama Abdi Husada Tulungagung students.

Pain is an unpleasant sensory and emotional experience resulting from actual or potential tissue damage. Pain is the main reason someone to seek health care assistance. Pain occurs with many disease processes or concurrent with some diagnostic or treatment checks. Pains is very disturbing and complicates more people than any disease (Smeltzer, 2001). One of the pain neuromodulators is endorphins (endogenous morphine), a substance similar to the body's supplied morphine, spinal and gastrointestinal tracts that give analgesic effect, when peripheral pain neurons transmit signals to synapses, synapses occur between peripheral pain and neurons which leads to the brain where it should be for the substance of pain, at which time endorphin will block the release of the substance of the pain (Tamsuri, 2007)

Endorphins are also chemical compounds that can control a person's stressful feelings. Women who often experience stress will more often experience pain during menstruation (dysmenorrhea) Stress causes emphasis sensation of the nerves of the hip and the muscles of the lower back causing menstrual pain. Evident in table 1.4 shows that from 30 respondents, the number of respondents who experience stress during menstruation is 18 (60%) and the remaining 12 (40%) respondents do not experience stress during menstruation.

The effect of emphasis on the acupressure point is related to its impact on the production of endorphins in the body one of which can control the feelings of stress. The release of endorphins is controlled by the nervous system, the nerves are sensitive to pain and stimulation from the outside, for example by using acupressure techniques, which can instruct the endocrine system to release endorphins according to body requirements (Hasanah, 2010).

So with the provision of acupressure therapy at 6 sanyinjiao spleen point is expected to increase the production of endorphin in the body and can reduce the stress so that no menstrual pain caused by stress karenan. In accordance with table 1.7 shows the effect of dysmenorrhea before acupressure therapy at spleen point 6 sanyinjiao and after acupressure therapy at spleen point 6 sanyinjiao that is before treatment average of respondents experiencing pain 4.63 which belongs to category of moderate pain and after done treatment of pain decrease with an average of 3.23 were included in the category of mild pain. It is proved that by giving acupressure therapy at spleen point 6 sanyinjiao at Nursing S1 student at STIKes Hutama Abdi Husada Tulungagung can decrease dysmenorrhea. Massage performed proved to provide a relaxing effect that decreases dysmenorrhea. Although the pain experienced is different, there is a decrease in the scale of pain from prior to the treatment of acupressure at the spleen point 6 sanyinjiao and after administering acupressure therapy at the 6 sanyinjiao spleen point.

Based on the description above, it can be concluded by the researcher that there is a change of menstrual pain before with after doing acupressure therapy at spleen point 6 sanyinjiao the average result decreased menstrual pain and from the statistic test itself $H_1$ results received, so there is influence of therapy acupressure at the point of spleen 6 sanyinjiao against dysmenorrhea degradation in undergraduates of Nursing At STIKes Hutama Abdi Husada Tulungagung Year 2016. Previous results have also been reported by Gharloghi, S (2010) that the intensity of pain in adolescent dysmenorrhea can be reduced by acupressure at spleen point 6 sanyinjiao. Also supported by the discovery of Chen (2006) which explains that dysmenorrhea can be reduced by acupressure.

IV. CONCLUSION

Based On The Research Result, The Effect Of Acupressure Therapy On Spleen 6 Sanyinjiao Point On Dysmenorrhea Decrease In Stikes Hutama Abdi Husada Tulungagung Can Be Concluded From 30 Respondents Before Treatment Of Acupressure Therapy At Spleen Point 6 Sanyinjiao. Average Of Respondents Experience Pain With Pain Scale 4.63 Which Is Included In Category Of

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Moderate Pain. The Result Of The Research On The Effect Of Acupressure Therapy On Spleen Point 6 Sanyinjiao To Dysmenorrhea Decrease In Stikes Hutama Abdi Husada Tulungagung Can Be Concluded From 30 Respondents After Treatment Of Acupressure Therapy. At Spleen Point 6 Sanyinjiao Average Respondents Experience Pain With Pain Scale 3,23 Which Included In Category Mild Pain. Further Analyzed With Test Paired T Test With P = 0,000, The Arit P <A = 0,05 So That Ho Is Rejected And H1 Accepted Which Means There Is Influence Of Acupressure Therapy At Spleen Point 6 Sanyinjiao To Dysmenorrhea Decrease In Stikes Hutama Abdi Husada Tulungagung.

V. ACKNOWLEDGMENT

Thanks to Stikes Hutama Abdi Husada Tulungagung. According to this research, It is expected that the place of research / institution of nursing education should equip the students with knowledge about the handling of nonpharmacology of menstrual pain in women who are experiencing pain, which later can be a provision of nurses in applying knowledge and knowledge to the community, especially women who experience menstrual pain

VI. REFERENCES


**Supplementary Material**

Supplementary material that may be helpful in the review process should be prepared and provided as a separate electronic file. That file can then be transformed into PDF format and submitted along with the manuscript.