The Effect of Sundanese Instrumental Music Therapy and The Provision of Spicy Drinks on Pain Intensity and Labor Duration

Ni Gusti Made Ayu Agung Budhi¹, Ni Nyoman Sasnitiari²,

¹Midwifery Professional Education Study Program, Bachelor Program, Health Polytechnic Jakarta III
²Midwifery Diploma III Program, Midwifery Study Program in Bogor, Health Polytechnic Bandung, Indonesia

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ABSTRACT
The pain in labor due to contractions and the process of expelling the baby cannot be avoided by the mother. One way to reduce pain intensity non-pharmacologically is music therapy and the provision of spice drinks. Music therapy can reduce stress and anxiety levels, especially during childbirth, while herbal drinks derived from ginger are analgesic, as well as cinnamon and cloves, can relieve pain. The research method is “Quasi experimental pre-post test with control group design. The intervention group was Sundanese instrumental music therapy with spice drinks and the control group was only given spice drinks, which was carried out on mothers giving birth during an active phase. The population is all mothers giving birth in BPM Bogor area. The sample size of the average difference test of two paired groups is 15 respondents in each group. The results showed a decrease in labor pain in the active phase of the first stage in the intervention group with \( p = 0.016 \). This shows that there is an effect of giving music therapy and spice drinks on the intensity of labor pain as assessed by the Visual Analog Scale (VAS), and there is no significant change in the decrease in labor pain during the active phase of labor, in the control group \( (p>0.05) \). There was no significant result on the length of labor with \( p = 0.439 \) \((p > 0.05)\). This means that both the control and intervention groups did not show a difference in the time/length of labor.

KEYWORDS
Music therapy, spice drinks, labor

CORRESPONDENCE
Phone: +6281290966670
E-mail: nigmaryana@email.com
I. INTRODUCTION
The pain of labor is experienced by all mothers in labor. Labor pain is perceived differently both the location of the pain and the level of pain intensity during the birth process. During the active phase, labor contraction pain is visceral and crampy resulting from distension and dilatation of the lower uterine segment and cervical tissue due to the expulsion of the baby. This labor pain is transmitted through the spinal cord T10-L1. The pain of labor travels to the abdominal wall, lumbosacral area, iliac crest, gluteal area, and thigh. (Chitra & Sharma, 2020). Pain management in the first stage of the active phase of labor needs to be managed properly because excessive pain and fear will make the length of labor longer. (Yazdkhasti & Pirak, 2016).

Pain in labor is influenced by the mother's physical and psychological and social conditions. Adequacy of maternal nutrition, complications, fear and anxiety, and family support are factors that can affect the delivery process can run smoothly or there are obstacles. Therefore, the pain and anxiety of the mother during childbirth must be managed properly.(Chen, Zeng, & Tang, 2020). Excessive pain and anxiety will make labor longer. Pain can cause stiffness in the pelvic muscles. This will cause the fetus to be stuck in the birth canal longer and delivery will be longer. Therefore, relaxation is needed so that the labor process can take place properly.

The peak of pain occurs in the active phase until complete dilatation or 10 cm lasts for 4.6 hours in primiparas and 2.4 hours in multiparas. There are several factors that affect the length of labor, namely the mother's psychology of childbirth such as stress, extreme pain, fear of the process being undertaken. Other factors are Cephalopelvic Disproportion (CPD) and uterine inertia. The duration of this labor will affect the condition of the baby being born and the condition of the mother giving birth. (Nisha, 2017).

There are many ways to relieve pain. Techniques to reduce/eliminate pain can be divided into two, namely pharmacological and non-pharmacological. Instrumental music therapy is one of the non-pharmacological techniques to relieve pain. (Karkal R, 2017). Music therapy can reduce stress and anxiety levels, especially in dealing with childbirth regardless of maternal age, level of education, religion, socioeconomic status, number of parity, and social support. (Nisha, 2017).

While the level of anxiety associated with the length of the labor process. The duration of labor is influenced by the presence of stimulation of the hypothalamus as an emotional regulatory center. The hypothalamus itself causes the sympathetic nervous system to work so that vasoconstriction occurs in organs and tissues, including the uterus. As a result, blood intake to the uterus is reduced so that oxygen and nutrients to the tissues and muscle cells of the uterus are inadequate. This condition will affect the metabolism of uterine muscle cells so that uterine contractions weaken and labor becomes longer. (Hayati, 2018)

Another study says that music therapy is a distraction used to distract from labor pains and anxiety. This study was conducted on 60 maternity mothers who were divided into two treatment and control groups showing a decrease in the level of anxiety and labor pain using the Visual Analogue Pain Scale (VAS) and Zung's Self-rating Anxiety Scale. (Karkal R, 2017).

The Sundanese are the original inhabitants of the western part of the island of Java or better known as the Sundanese. They have Sundanese music, one of which is the instrumental lute flute which is commonly used as relaxation music for Sundanese people who come from the Cianjur
area, West Java. The rhythmic strains of the harp and flute as slow-tempo relaxation music make the soft music melismatic. (Wasta & Shohihat, 2020). Several studies on the harp flute as music therapy include the study of Sepriliani, Mulyani, & Diana (2018), this has been proven to relieve pain in post partum wounds, relieve acute pain in the elderly, especially by looking at a decrease in blood pressure and pulse (Marsyia & Widyatuti, 2020), reducing anxiety levels in hemodialysis patients (Alamsah, Rahayuwati, & Purba, 2018).

Various articles about herbal drinks that can reduce pain have also been started, one of which is a drink from ginger, cinnamon, and honey. “Ginger preclinically, both in vitro and in vivo, has been shown to have antimicrobial, antifungal, anthelmintic, antioxidant, anti-inflammatory, antitumor effects, immunomodulatory, antilipidemic, analgesic properties, and has a protective effect on the digestive tract. effective at levels of 2 grams per day (in one dose or divided into several times) can be done in an unlimited time.” (Harwati, 2009)

Red ginger rhizome has the same anti-inflammatory effect as NSAIDs and is an analgesic like ibuprofen and mefenamic acid which act as analgesics. The anti-inflammatory effect of red ginger can inhibit prostaglandins by inhibiting the cyclooxygenase enzyme, resulting in a decrease in leukotrienes and prostaglandins which are inflammatory mediators. (Dahlan, Juneldi, & Azzahroh, 2020). The research of Tuti Meihatarti, Aries Abiyoga, Hestri Norhapifah, (2019) stated that warm ginger drinks can reduce pain in the first stage of labor. Cloves and cinnamon are also used to relieve toothaches and promote menstruation. Indriyani ED, (2015) explained that the highest antioxidant test was obtained with 53.48% results in the A3B1 treatment, namely drying for 40 minutes at a temperature of 55°C with the addition of 0.5 grams of cinnamon and 0.25 grams of cloves. (Indriyani, 2015). Another study said that the combination of cinnamon and clove oil did not show cytotoxicity at the recommended dose level (IC50 > 2000 g/ml). The combination of cinnamon with cloves can indeed be used as a potential mixture as a new antibacterial, antifungal, and natural antioxidant that is safe and effective in the food and pharmaceutical industries.

Cinnamon can also reduce pain in dysmenorrhea although it is still more effective using ibuprofen, however, cinnamon can be an alternative to reduce the pain that is safe as a non-pharmacological drug. (Jaafarpour, Hatefi, Khani, & Khajavikhan, 2015). While honey is the glandular fluid of plant nectar which is rich in various forms of carbohydrates such as sucrose, fructose, and glucose, containing small amounts of nitrogen-containing compounds, such as amino acids, amides, organic acids, vitamins, aromatic compounds, and also minerals (Maftuchah, Siti Nur Umariyah Febriyanti, 2018). Honey in this research activity is used as a sweetener in spice drinks along with cinnamon, cloves as a mixture in red ginger as a basic ingredient. Cinnamon and honey are believed to have anti-oxidant, anti-biotic, and anti-fungal properties as well as nutrients that can increase endurance, and also help increase the stamina of mothers who are experiencing decreased immunoglobulin during childbirth. This condition must be balanced with the administration of non-pharmacological antibiotics and anti-oxidants to prevent infection. While honey provides the calories needed by the mother to meet the needs in the metabolism of uterine muscle cells in contracting to push the baby out.
II. METHODS

The research design used was "Quasi-experimental pretest-posttest control Group Design, with Sundanese instrumental music therapy intervention for 30 minutes and at most 2 times therapy if it has not entered the second stage of labor. The Sundanese instrumental music therapy given is the instrumental harp flute entitled "ayun udder and tarawangsa". Mothers are also given a welcome drink in the form of drinks from ginger, cinnamon, cloves, and honey when the mother gives birth during the active phase at 4-6 cm opening. Then assessed before and after the intervention using a VAS assessor as well as, duration of labor. The research will begin at the BPM Bogor area in May-August 2019. The research location is currently preferred by midwives practice independently (BPM) for normal deliveries than in the clinic and in the hospital as well as the comfort of the environment can be controlled. The study was conducted on all primigravida mothers in 2 PMB in the Bogor city area which had the same standards in terms of location, quality of service, and a sufficient number of cases of normal delivery in May-August 2019. The sampling technique was proportional sampling. The formula for the research sample size is the Hypothesis Testing the Mean Difference in 2 paired groups. The sample size in this study was 15 primigravida for each group, by meeting the inclusion criteria were primigravida normal maternity women in selected PMB and not included in the high-risk group. Analysis of the data in this study using a two-average difference analysis, namely by using the T-test and Wilcoxon rank on data that are not normally distributed.

III. RESULT

Respondents in this study were mothers who gave birth in the Bogor city area who gave birth at 2 BPM (Independent Practice Midwives), namely Midwife Gita Marisa AMd.Keb, Midwife WatiWidanaAMd.Keb. All pregnant women used were normal primigravida maternity and domiciled in Bogor who came from the Sundanese ethnic group.

In table 1. The following are the characteristics of the respondents involved in the research

Table 1. Characteristics of mothers giving birth in this study

<table>
<thead>
<tr>
<th>variables</th>
<th>intervention group</th>
<th>control group</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages of pregnant women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>healthy reproductive ages</td>
<td>n=13, %86,7</td>
<td>n=13, %86,7</td>
<td>0,701</td>
</tr>
<tr>
<td>Reproduction is not healthy</td>
<td>n=2, %13,3</td>
<td>n=2, %13,3</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ Senior high school</td>
<td>n=2, %13,3</td>
<td>n=4, %26,7</td>
<td>0,326</td>
</tr>
<tr>
<td>≥ Diploma</td>
<td>n=13, %86,7</td>
<td>n=11, %73,3</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>maternal housewives</td>
<td>n=12, %80</td>
<td>n=11, %73,3</td>
<td>0,5</td>
</tr>
<tr>
<td>maternal works</td>
<td>n=3, %20</td>
<td>n=4, %26,7</td>
<td></td>
</tr>
</tbody>
</table>
Based on table 1, it was found that most of the respondents' ages were of healthy reproductive age of 86.7% in both the control group and the case group. Based on the education of the respondents, most of them were educated 73.7% in the control group and 86.7% in the case group.

Based on the occupation of the respondents, it was found that most of the respondents did not work in the control group with 73.3% and 80% in the case group.

The description of the intensity of labor pain in the intervention group, both pretest and posttest, showed an abnormal distribution of data with a p-value <0.05 (0.000 for the pretest, while in the posttest with a p-value of 0.030). So the test carried out is the Wilcoxon test. The results of the intervention group test can be seen in Table 2.

Table 2 Intensity of the First Stage of Labor Pain before and after being given Sundanese instrumental music therapy and given spice drinks (Intervention Group)

<table>
<thead>
<tr>
<th>Intensity Labor pain</th>
<th>n</th>
<th>Median Minimum - maksimum</th>
<th>Mean±SD</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pretest</td>
<td>15</td>
<td>8 (4 – 8)</td>
<td>7.267 ± 1.334</td>
<td>0.016</td>
</tr>
<tr>
<td>posttest</td>
<td>15</td>
<td>6 (4-8)</td>
<td>6,467 ±1.302</td>
<td></td>
</tr>
</tbody>
</table>

In table 2 it can be seen that the median intensity of pain before being given Sundanese instrumental music therapy and spice drinks was 8 with a minimum of 4 and a maximum of 8 with an average of 7.267 standard deviations obtained ±1.334. After being given Sundanese instrumental music therapy, there was a decrease in pain with a median of 6 with a minimum of 4 and a maximum of 8 with a mean of 6,467 with a standard deviation of ± 1,302. After the Wilcoxon test, it was found that there was an effect of Sundanese instrumental music therapy and spice drinks with a p-value <0.05 (p = 0.16).

However, in the control group, it was found that the administration of spice drinks alone (control group) did not have a significant effect on the intensity of labor pain in the first stage. This is evidenced by the results of the comparison t-test with a value of p> 0.05 (0.709) as shown in the table 3. In the control group before being given the spiced drink, there was an average of 6.200 with a standard deviation of ± 2.24 and after being given the spiced drink, there was no change with an average of 5.933 with a standard deviation of ±3.127. The statement can be seen in table 3.

Table 3 Labor Pain Intensity before and after being given spice drinks (control group)

<table>
<thead>
<tr>
<th>Intensity Labor pain</th>
<th>n</th>
<th>Mean±SD</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pretest</td>
<td>15</td>
<td>6,200 ± 2,245</td>
<td>0.721</td>
</tr>
<tr>
<td>sebelum</td>
<td>15</td>
<td>5.933 ±3.127</td>
<td></td>
</tr>
</tbody>
</table>
The description of labor pain intensity in the control group, both pretest and posttest, appeared to be normally distributed. This is indicated by the p-value > 0.05 (0.182 for pretest and posttest with p-value = 0.087). Table 4 shows that the statistical test conducted using Man Whitney between the group given spice drinks and music therapy (intervention group) and the group given spice drinks (control group) both at the time of pre-test and post-test showed no significance where the value p>0.05. Data on length/time of delivery experienced by control respondents were normally distributed with a p-value > 0.05 (0.568). Meanwhile, in the case of respondents, data on the length/time of delivery showed a picture that was not normally distributed with a p-value of <0.05 (0.004). Therefore, the statistical test used is the Mann-Whitney test.

Table 4 The Effect of Intensity of Labor Pain in the First Stage between the Group Given Sundanese Music Therapy and Spicy Drinks (Intervention group) and the Group Given Spice Drinks Only (Control group)

<table>
<thead>
<tr>
<th>Intensitas Labor pain</th>
<th>n</th>
<th>Median Minimum-maksimum</th>
<th>Mean±SD</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Intervention group</td>
<td>15</td>
<td>8 (4 – 8)</td>
<td>7.267 ± 1.334</td>
<td>0.109</td>
</tr>
<tr>
<td>Pretest Control group</td>
<td>15</td>
<td>7 (2 -10)</td>
<td>6.200 ± 2.24</td>
<td></td>
</tr>
<tr>
<td>Posttest Intervention group</td>
<td>15</td>
<td>6 (4-8)</td>
<td>6.467 ± 1.302</td>
<td>0.916</td>
</tr>
<tr>
<td>Posttest Control group</td>
<td>15</td>
<td>7 (0-10)</td>
<td>5.933 ± 3.127</td>
<td></td>
</tr>
</tbody>
</table>

Based on table 5 below, shows that there is no significant difference between the group that was only given spice drinks and the group that was given Sundanese instrumental music therapy and spice drinks with a p value> 0.05 (0.439).

Table 5. The Effectiveness of Sundanese Instrumental Music Therapy and Spicy Drinks with the Provision of Spicy Drinks for Long Labor

<table>
<thead>
<tr>
<th>Duration labor</th>
<th>n</th>
<th>Median Minimum-maksimum</th>
<th>Mean±SD</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention group</td>
<td>15</td>
<td>3 (1-10)</td>
<td>4,10 ± 2,73</td>
<td></td>
</tr>
<tr>
<td>control group</td>
<td>15</td>
<td>3 (1 – 5)</td>
<td>2,966 ± 1,09</td>
<td>0.439</td>
</tr>
</tbody>
</table>

IV. DISCUSSION

The pain intensity obtained in the study was measured based on the Visual Analogue Scale (VAS) measurement. In the case/intervention group (giving music therapy and spice drinks) the median intensity of pain before the Sundanese instrumental music therapy and spice drinks was given was 8 with a minimum of 1 and a maximum of 3 with an average of 6222 standard savings obtained ± 2.24. After being given Sundanese instrumental music therapy, there was a decrease
in pain with a median of 6 with a minimum of 1 and a maximum of 2 with a mean of 6.037 with a standard deviation of ±3.127.

Meanwhile, during the pretest in the control group (which was only given spice drinks) the average was 6222 with a standard deviation of ±2.24 and after being given spice drinks, the average was 6.037 with a standard deviation of ±3.127. In this group, when viewed from the average, there is no difference between before and after being given the spiced drink.

Another study on music therapy stated that soothing music was effective in reducing pain during the latent phase of labor as assessed on the Visual Analog Scale and the Behavioral scale. Subjects who had been exposed to music reported a reduction in pain from severe to moderate levels. There was a decrease in the value after being given music therapy from 80.2 to 62.2 with the Vas scale and from 7.7 to 5.8 with the BRS scale which was statistically significant. (Chitra & Sharma, 2020) This is in accordance with research (Humaira & Saragih, 2016) which states that the average intensity of labor pain in labor in the intervention group is given classical music therapy with a scale of 5.09 (SD = 1.019), while the average intensity of labor pain is in the control group (without music therapy), is on a scale of 7.05 (SD=1.090). Several studies on instrumental Sundanese music, especially the flute lute, can relieve post-cesarean surgery wound pain, relieve acute pain in the elderly, and reduce anxiety levels in hemodialysis patients. (Alamsah et al., 2018), (Marsyia & Widyatuti, 2020), (Sepriliani et al., 2018).

Labor pain comes from the stretching or dilatation of the cervix as a result of uterine contractions during labor. Contractions push the baby out of the birth canal and cause strong pressure on the bladder, rectum, spine, pubic bone. This situation causes pain in the mother.

Instrumental music therapy is a non-pharmacological distraction technique that is effective in relieving labor pain. Music therapy works by influencing the pituitary in the brain to release endogenous dynorphins (endogenous opiates) but in conditions of severe pain, instrumental music therapy does not function in influencing the pituitary in the brain to optimally release endorphins or endogenous opiate stimulation. (Karlita et al., 2013).

This study also looked at the length of labor needed by the mother to give birth to her baby. The duration of labor is seen from the pathograf starting from the active phase starting, namely when the cervix is opened 4-6 cm until the cervix is 10 cm. The length of labor in the intervention group varied greatly with the fastest time being 1 hour to 10 hours, while in the control group it was from 1 hour to 5 hours. The results showed that the length of this study had a mean of 4.10 (SD 2.73) in the intervention group and 2.966 (SD 1.09) in the control group. This is in line with research (Putri, 2012) on the effect of music therapy on the length of labor where it was found that the average length of labor in the first stage of primiparous mothers in the control group was 18.2 hours (SD 8.61) while in the intervention group it was 10.6 hours (SD 0.89).

The length of the exercise is influenced by the strength of the uterine contractions that push the baby and the baby's condition and the psychological state of the mother. Music therapy causes endogenous opiate hormones and causes relaxation in the uterine muscles and pelvic muscles so that the decrease will be easier when compared to the uterine muscles and pelvic muscles due to pain.

This study found that the median intensity of pain given before being given Sundanese instrumental music therapy and spice drinks was a scale of 8 (1-3) with a mean of 6.22 (SD 2.24) and the intensity of pain intensity was given before being given Sundanese instrumental music therapy and spice drinks. is a scale of 6 (1-2) with a mean of 6.037 (SD 3.127).

Based on the results of the Wilcoxon test, p-value <0.05 (0.016), there was a significant difference in the intervention group. However, in the control group, there was no significant
difference where the results of the T-test showed p>0.05 (0.709). The data in table 4. shows that the mean result in the control group is on a scale of 6.222 (up to 2.24) before being given a spiced drink, while after being given a spice drink it is 6.037 (up to 3,127).

This study showed that 150 cc of spice drink given at the beginning of the first active phase did not give a significant difference to the intensity of labor pain. However, when it is added with Sundanese instrumental music therapy, it gives a significant difference.

The effectiveness of music therapy on pain and anxiety in primigravida mothers during the active phase of the first stage of labor showed that music therapy in the intervention group had a p-value of < 0.001 while in the control group a p-value of 0 < 0.01. This shows that music therapy is very effective in reducing labor pain and anxiety levels in primigravida mothers at a low cost, without any invasive and non-pharmacological measures. (Karkal R, 2017)

This study is in line with (Humaira & Saragih, 2016) which states that the provision of music therapy has an effect on decreasing the intensity of labor pain with a value of p = 0.001. The three studies above used classical musical instruments. While in this study using classical Sundanese music instrumental.

Music therapy to reduce pain is music that uses soft music that calms and stimulates brain waves with deep delta frequencies to stimulate a state of deep relaxation. Relaxation is a psychological effect that can reduce heart rate, respiratory rate, and metabolism. In the first stage of labor, the active phase where the mother's metabolism is very high due to uterine contractions and the pelvic muscles that work in labor to give birth to the baby can be suppressed in such a way that labor continues but the pain due to strong pressure can be reduced.

Factors that influence the response to pain perception are culture, anxiety, childbirth experience, family support (support system) and preparation for delivery. One that influences the response to pain perception is culture. Therefore in this study using Sundanese instrumental music in the people of the city of Bogor.

The instrument used is a type of flute harp. The use of this musical instrument provides a soft strain and provides an atmosphere of relaxation when the mother is having contractions waiting for the baby's birth to arrive (the first stage of the active phase). Musical instruments are used in the form of a harp, eunetunguen or a good mirror and a flute with a loud sound or a reminder that in life it will remind with knowledge and worship. Likewise, the song used is also the song Ayun Ambing which means a mother who is cuddling her newborn baby, and Tarawangsa which means offering while waiting for the baby to be born.

Another factor that influences the response to pain perception is labor preparation and family support. Giving spice drinks strengthens the response to the perception of maternal pain. The culture of drinking herbal medicine for some Indonesians, one of which is West Java, has been carried out for generations with the excuse of providing energy and relieving pain, and speeding up the delivery process. Therefore, a spice drink made from 5 grams of red ginger, 0.5 grams of cinnamon and 0.25 grams of cloves, and 30 ml of honey was in great demand by the respondents. Some even ask to drink it after labor takes place.

The dominant taste of ginger is spicy due to a ketone compound called zingerone which is believed to be a substitute for aspirin and similar drugs. (Dahlan et al., 2020). While cloves in the pharmaceutical industry are used as an ingredient for analgesic, anti-inflammatory, antimicrobial, anti-viral, anti-functional, anti-septic, anti-spasmodic as well as local anesthetics because they contain Eugenol compounds according to Pramod et al; Jirovetz, 2010 in (Towaha, 2012).
While cinnamon is used as a natural chocolate flavor and color. The dose in this study used the dose used in research (Indriyani, 2015) on antioxidant activation and organoleptic properties of Moringa leaf tea. The efficacy of cinnamon on the human body in this study utilizes the effects of preventing, increasing cognitive function, helping to overcome allergies, and as a natural preservative. In addition, 30 ml of honey is added. In 150 cc used by the author as a source of energy, improve memory and sweet taste.

This study also explained that there was no significant difference in the intensity of labor pain. However, when viewed from the test results on the average difference between pre and post-tests in the intervention group itself, it showed significance with a p-value < 0.05. It could be said that the provision of spice drinks followed by Sundanese instrumental music therapy was better than the group that was given only spice drinks. Spice drink is a non-pharmaceutical herbal medicine that is analgesic and provides stamina for the mother. However, there are many factors that will affect labor pain, namely physiological factors, socio-cultural factors, and psychological factors. These physiological factors such as the high metabolism of uterine muscle cells during the first stage of labor, cervical dilatation, and the baby's encouragement. In this study, the dose content of analgesics, antibiotics, and antioxidants contained in spice drinks has not been investigated so that the effects found on each person will be different.

In the intervention group, the provision of this spice drink was followed by listening to Sundanese instrumental music therapy for 30 minutes to 1 hour depending on the duration of labor during the first active phase. The ayun udder and tarawangsa music produced from the plucked strings of the harp and the soft sound of the flute make the listening mother calmer. Soft music is believed to reduce the release of catecholamines into the blood vessels. Plasma catecholamines can affect sympathetic adrenergic activation and cause the release of stress hormones. (Sepriliani et al., 2018)(Irman, Nelista, & Keytimu, 2020) This stress hormone causes vasoconstriction in blood vessels and stiffness in the muscles as well as in the uterine muscles. In this study, it was also found that there was no effect of classical Sundanese instrumental music therapy and spice drinks on the length of labor with a p-value > 0.05 (0.439). This can be seen in table 5 which states that the average time required for the first stage of labor in the intervention group is 4.10 (SD 2.73) and the average time required for labor in the control group is 2.966 (SD 1.09).

This is in line with the research of Putri N and Wrsiti (2012) which stated that there was no significant effect between the intervention group with classical music therapy and the control group with a p-value > 0.05 (p = 0.12) with the mean in the control group being primigravida mothers was 18.2 hours (SD 8.613) and the intervention group for primigravida mothers was 10.6 hours (SD 0.894).

In this study, the intervention group who was given a spice drink accompanied by Sundanese instrumental music therapy had a longer duration of labor. A spice drink consisting of red ginger, cloves, and cinnamon as well as honey provides an analgesic pain-reducing effect. The analgesics contained in red ginger pleasant with cloves inhibit prostaglandins by inhibiting the cyclooxygenase enzyme, resulting in a decrease in leukotrienes and prostaglandins. (Dahlan et al., 2020)(Tuti Meihartati, Aries Abiyoga, Hestri Norhapifah, 2019). Prostaglandin itself in labor is needed to strengthen uterine muscle contractions. Sundanese instrumental music itself provides a relaxing effect. This will at least reduce the work of the uterine muscles to contract more strongly. However, it does not cause an excessive effect on the shipping process. This is evidenced by the average length of labor in the active phase I in the intervention group is 4.10 (SD 2.73), this is still within the normal time span in the labor process. The provision of spice
drinks followed by the provision of Sundanese music therapy can be recommended because the pain experienced by the mother is reduced but the length of labor is still in normal time.

V. CONCLUSION

There was a significant difference before and after giving spice drinks derived from ginger, cloves, and cinnamon with honey and Sundanese instrumental music therapy in overcoming labor pain. In the control group, which was only given spice drinks, there was no significant difference. While the provision of classical Sundanese music instrumental and spice drinks did not have an effect on the length of labor that took place. However, the length of labor in the intervention group was still within normal limits. Maternal care in normal delivery can be provided with good labor pain management. The provision of a spice drink made of red ginger, cloves, cinnamon, and honey as well as Sundanese instrumental music therapy with the harp and flute can be recommended as a form of maternal care.

in normal labor can be given with good labor pain management. The provision of a spice drink made of red ginger, cloves, cinnamon, and honey as well as Sundanese instrumental music therapy with harps and flutes can be recommended as a form of motherly care.

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BIOGRAPHY

First Author Name is Ni Gusti Made Ayu Agung Budhi, SSiT., MKeb. Education started in 1991 as a D1 midwifery graduate at the Bogor Health Department Education Program in 1991 -1992, then continued her education at the CiptoMangunkusumo Midwifery Academy in 1997 -2000. In DIV Education Midwife educators at GadjahMada University took place in 2000-2001 and lastly earned a Master's degree in Midwifery from Padjadjaran University in 2006-2008. Work experience from 1992 to 1997 as a village midwife in SukajadiPandeglang; In 2012 – 2019 as a lecturer at the D III Midwifery Study Program at the Bandung Health Polytechnic, then moved to the Bandung Health Polytechnic, the undergraduate midwifery study program majoring in midwifery Jakarta III from 2020 until now.

Several studies and journals that have been carried out include the title: The long relationship between the Implementation of Early Breastfeeding Initiation with the Success of Breastfeeding in the Early Neonatal Period at the Bogor Health Center published in the Journal RisetkesehatanVol.7, no.1 (2014), Relationship between knowledge of pregnant women about danger signs and complications with compliance with antenatal visits and choice of place of delivery in the Bogor Sareal area in the journalJurnalIlmiah Kesehatan Diagnosis Vol 8 no1 (2016), Characteristics of Maternal Maternity in relation to the intensity of labor pain in the 1st stage in the city of Bangor in the Journal Malahayati.ac.id, New Approach for Referral Preparation to the Health Care Center in Denpasar City and Bogor Regency as a member researcher in the journalIndian Journal of Publich Health Research & Development, Desember 2018,Vol 9, No 12, Community-Based Midwifery Care Approach (PASKIBRAKA) for Midwife in Denpasar City and Bogor City as a member researcher in the journalInternational Journal of Science and Research (IJSR) ResearchgateNet 8 (12), 920-923, Effectiveness Of Guidance ForPregnant Women About Early Detection Of Danger Signs InPregnancy Using Leaflet And Audiovisual Media di Jurnalrisetkesehatan, 2020 Vol.1, No 12. Email: nigmaryana@gmail.com.