PROCEEDING BOOK

THE 4th INTERNATIONAL CONFERENCE ON HEALTH SCIENCE 2017

“The Optimalization of Adolescent Health in The Era of SDGs”

INNA GARUDA HOTEL YOGYAKARTA, INDONESIA
November 5th, 2017

HEALTH POLYTECHNIC OF HEALTH MINISTRY
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“The Optimalization of Adolescent Health in The Era of SDGs”

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EXPERIENCE OF ADOLESCENTS WITH PREMENSTRUAL SYNDROME AND INFORMATION-FOCUSED THERAPY (IFT) FOR REDUCING ITS AFFECTIVE SYMPTOMS

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ABSTRACT

Premenstrual syndrome (PMS) refers to physical and emotional symptoms that occur before menstruation. PMS is a health problem experienced by around 20-40% of women. The symptoms of PMS affects quality of women's life. Information-Focused Therapy (IFT) is a non-pharmacological treatment that is effective therapy as an treatment of PMS. This research aimed to find out the effect of IFT in decreasing PMS of adolescent and to described their experience. A Mixed Methods study used sequential exploratory approach. Number of respondents were 26 and 6 female students as informants of SMK Puragabaya Bandung, West Java, that met criteria of PMS based on American College of Obstetrics and Gynecology (ACOG). IFT were presented with information about PMS, nutritional for PMS, activity recommendations, and relaxation management. The data were collected from the questionnaires about symptoms and the results of in-depth interviews. The analysis of data used Paired Sample T-Test and Colaizzi method for data qualitative. Results: Paired t-test was used find out changes of symptoms before and after giving IFT (p=0.003). There is a decrease of symptoms before and after IFT. Six themes were found: PMS perceived as a change that affects the psychological, behavioral and physical; PMS interfere activities and social relationships; Adolescents prefer non-pharmacological treatment to PMS; The Handling of PMS based on Family suggestions; IFT can decrease affective symptoms; and Perception of adolescent being more positif after IFT. Conclusion: IFT effective in reducing PMS. Therefore, nurses have a role to apply IFT for PMS.

Keywords: adolescent, premenstrual syndrome, information-focused therapy

INTRODUCTION

Menstruation is the discharge of blood from the uterus through the vagina which happens monthly. Menstrual disorders are problems which occur in the menstrual cycle. Menstrual disorders happen because of many factors, including abnormal anatomy, physiological imbalance and life style. Premenstrual Syndrome (PMS) refers to physical and emotional symptoms that occur in the one to two weeks before a woman's period. Symptoms often vary between women and resolve around the start of bleeding. Common symptoms include acne, tender breasts, bloating, feeling tired, irritability, and mood changes. An estimated 85-97% of female adolescents experiencing psychological and physical symptoms by PMS before the onset of menstruation. The high number of PMS problems in women, especially adolescents will have an impact on the quality of life, that is if the symptoms of PMS not handled properly can interfere with daily activities and if it occurs in the long term and not handled, it can affect the academic value of school, can disrupt the learning activities so that
adolescents can not concentrate in receiving their lessons at school. A few interventions to reduce PMS include going out for a walk out of the house, sleeping, eating sweet foods, or consuming analgetic. Information-focused therapy (IFT) is one of PMS handling or non-pharmacological treatment for PMS. IFT consist of Information about PMS handling. The information just only on relaxation training, nutritional and vitamin guidelines, dietary and lifestyle recommendations, and assertion training, and did not address belief restructuring.

Based on information obtained from the observation of researchers, SMK Puragabaya Bandung was one school that had no subject about health of reproduction such as menstruation, although prevalence of PMS was highly, exactly 91.2%. So, researchers interested in studying the phenomena that occur in adolescents who experience PMS in SMK Puragabaya, Bandung. This research aimed to find out the effect of Information-Focused Therapy (IFT) in decreasing PMS of adolescent and to described their experience with PMS.

Premenstrual syndrome is characterized by presence of at least one of physical (e.g., breasts tenderness, headache, change in appetite, dizziness, lethargy) or physiological symptoms (e.g., irritability, unstable emotion, depression, anxiety) during the 5 days before menstruation and relief of symptoms in the onset of menstruation. Menstrual disorders are problems that occur in the menstrual cycle which may be caused by several factors, namely abnormal anatomy, physiological imbalance and lifestyle.

Based on the criteria according to the American College of Obstetricians and Gynecologists (ACOG) criteria for the diagnosis of PMS. To fulfills this instrument by retrospective method with the criteria for PMS said if for 5 days before menstruation until a few days after menstruation experiencing at least one of somatic and physical symptoms; and these symptoms interfere with daily activities (work, study, relationships with family members, relationships with friends, and so on). The symptoms are anxiously, difficult to concentrate, suddenly feel sad or cry, easily offended, easy to feel tired, change in appetite (eating lazy or increased appetite), sleep disorder (difficulty initiating sleep, difficulty maintaining sleep well, or need more sleep), breast feels tight, headache, muscle or joint pain, weight gain, depression (feeling sad or feel no hope in the future), decreased interest in routine activities (eg studying, hanging out with friends), and easy to anger.

METHODS

The design of this research was a Mixed Methods study used sequential exploratory approach. The research was conducted in SMK Puragabaya Bandung, West Java, Indonesian in March to September 2017. Female Students population at SMK Puragabaya, Bandung, West Java were 159 female students and samples taken for in-depth interviews were 6 girls having reached the saturation of data. Number of respondents were 26 and 6 female students as informants of SMK Puragabaya Bandung, West Java, that met criteria of PMS based on American College of Obstetrics and Gynecology (ACOG). Instruments in this study is questionaires and the researchers themselves who perform in-depth interviews with unstructured interview technique. The researchers also used the interview guide has been prepared before. The tools used interview is voice recorder and field notes.

The data were collected from the questionnaires about symptoms based on ACOG criteria and the results of in-depth interviews with an unstructured interview and for trustworthiness with data source triangulation to their teachers and classmates. The method used purposive sampling with sampling criterion, namely adolescents with inclusion criteria were:
1. Female students at SMK Puragabaya, Bandung, West Java
2. The regular menstrual cycles during the past 3 months (21-35 days),
3. Meet the diagnostic criteria for PMS with ACOG,
4. Willing to be a participant.

The First Step, the female student had PMS based on ACOG criteria as much as 26 female students were measured their symptoms of PMS with questionnaires. The questionnaires of symptoms with likert scales (0-3) consist of 0 means never, 1 means rare, 2 means sometime, and 3 means often. Then, 6 female students among them were interviewed by researcher with in-depth interviews used unstructured interview about their experiences with PMS. After that, the female students as respondents got IFT by therapists. IFT were presented with information on PMS, nutritional for PMS, activity recommendations for PMS, and relaxation management for PMS.

The Second Step, respondents were measured for second measuring of symptoms before their next menstruation period, at least on next month after the first step or between 21-35 days of menstruation cycles based on their cycles. The second measuring of symptoms used the same questionnaires with in first step. Then, six informants were interviewed again about their experiences of PMS after got IFT by therapist.

The Bivariat analysis of data quantitative used Paired Sample T-Test and Colaizzi method for data qualitative. Method of data analysis are the seven stages according Colaizzi (1978), namely:

1. The researcher reading of all transcripts of interviews.
2. Researchers reread the transcript of the participants many times to get the theme of experience symptoms of PMS.
3. Researchers decipher the meanings of statements about adolescent experience to formulate the meaning of these experiences that arise category.
4. Repeating every description and read the rest of the existing categories, comparing and finding similarities between these categories, and in the end grouping similar categories into sub-themes and themes.
5. Researchers combined the results of cluster theme obtained is then used to describe the phenomenon of adolescents with symptoms of PMS experience complete.

6. Formulate a complete description of the phenomenon (exhaustive description) into a clear statement or identify the essence of the adolescent experience.
7. The final stage namely to validate the data that was collected by means of interviews.

RESULTS
1. Characteristics of respondents
   All participants were female students in the first or second level at SMK Puragabaya, Bandung, West Java, Indonesia. They had taken based on inclusion criteria for this study. The participants were 14-15 years old and had regular menstruation in three menstruation periods before.

2. Screening of Premenstrual Syndrome (PMS)
   Screening of PMS at SMK Puragabaya Bandung was done by using screening of PMS diagnosis based on ACOG. The screening results of PMS in female students are as follows:
Table 1. Frequency Distribution of Premenstrual Syndrome (PMS) Screening at female students in SMK Puragabaya, Bandung, West Java, Indonesia, April 2017

<table>
<thead>
<tr>
<th>No.</th>
<th>Types of PMS</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Non PMS</td>
<td>14</td>
<td>8,8%</td>
</tr>
<tr>
<td>2.</td>
<td>PMS (Mild/Moderate)</td>
<td>76</td>
<td>47,8%</td>
</tr>
<tr>
<td>3.</td>
<td>PMDD/ severe PMS</td>
<td>69</td>
<td>43,4%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>159</td>
<td>100%</td>
</tr>
</tbody>
</table>

From table 1 it could be seen that girls in SMK as much as 91.2% experience PMS where 47.8% were in the mild and moderate category of PMS, while as much as 43.4% were in the severe category of PMS or called Premenstrual Dysphoric Disorder (PMDD). Only a small proportion of female students were 8.8% without PMS.

Table 2. Frequency Distribution of PMS Symptoms at Female Students in SMK, Puragabaya, Bandung, West Java, Indonesia, April 2017 (n=159)

<table>
<thead>
<tr>
<th>No</th>
<th>Symptoms</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Easy to anger</td>
<td>44</td>
<td>57,9%</td>
</tr>
<tr>
<td>2.</td>
<td>Irritability</td>
<td>34</td>
<td>44,7%</td>
</tr>
<tr>
<td>3.</td>
<td>Restlessness</td>
<td>30</td>
<td>39,5%</td>
</tr>
<tr>
<td>4.</td>
<td>Muscle or joint pain</td>
<td>29</td>
<td>38,2%</td>
</tr>
<tr>
<td>5.</td>
<td>Breast tenderness or pain</td>
<td>17</td>
<td>22,4%</td>
</tr>
<tr>
<td>6.</td>
<td>Difficulties with concentration</td>
<td>12</td>
<td>15,9%</td>
</tr>
<tr>
<td>7.</td>
<td>Decreased interest in routine activities, ex: study</td>
<td>12</td>
<td>15,9%</td>
</tr>
<tr>
<td>8.</td>
<td>Change in appetite (eating lazy or increased appetite)</td>
<td>10</td>
<td>13,2%</td>
</tr>
<tr>
<td>9.</td>
<td>Suddenly feel sad or cry</td>
<td>9</td>
<td>11,8%</td>
</tr>
<tr>
<td>10.</td>
<td>Headache</td>
<td>9</td>
<td>11,8%</td>
</tr>
<tr>
<td>11.</td>
<td>Sleep disorder (difficulty initiating sleep, difficulty maintaining sleep well, or need more sleep)</td>
<td>8</td>
<td>10,5%</td>
</tr>
<tr>
<td>12.</td>
<td>Anxiety</td>
<td>7</td>
<td>9,2%</td>
</tr>
<tr>
<td>13.</td>
<td>Weight gain</td>
<td>4</td>
<td>5,26%</td>
</tr>
<tr>
<td>14.</td>
<td>Depression (feeling sad or feel no hope in the future)</td>
<td>1</td>
<td>1,3%</td>
</tr>
</tbody>
</table>
3. Univariat Analysis

Table 3. Frequency Distribution of Premenstrual Syndrome (PMS) for Pre and Post Information-Focused Therapy (IFT) at Female Students in SMK, Puragabaya, Bandung, West Java, Indonesia, April 2017 (n=26)

<table>
<thead>
<tr>
<th>No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>Percent</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>1.</td>
<td>Easy to anger</td>
<td>2.11</td>
<td></td>
<td>1,58</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70.5%</td>
<td>52.6%</td>
</tr>
<tr>
<td>2.</td>
<td>Irritability</td>
<td>1.96</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65.4%</td>
<td>33.3%</td>
</tr>
<tr>
<td>3.</td>
<td>Restlessness</td>
<td>2</td>
<td></td>
<td>2.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>66.7%</td>
<td>69.3%</td>
</tr>
<tr>
<td>4.</td>
<td>Muscle or joint pain</td>
<td>1.65</td>
<td></td>
<td>1.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55.1%</td>
<td>60.3%</td>
</tr>
<tr>
<td>5.</td>
<td>Breast tenderness or pain</td>
<td>0.69</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>6.</td>
<td>Difficulties with concentration</td>
<td>2.62</td>
<td></td>
<td>1.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87.2%</td>
<td>57.7%</td>
</tr>
<tr>
<td>7.</td>
<td>Decreased interest in routine activities, ex: study</td>
<td>2.19</td>
<td></td>
<td>2.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>73.1%</td>
<td>67.9%</td>
</tr>
<tr>
<td>8.</td>
<td>Change in appetite (eating lazy or increased appetite)</td>
<td>2.12</td>
<td></td>
<td>204</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70.5%</td>
<td>68.9%</td>
</tr>
<tr>
<td>9.</td>
<td>Suddenly feel sad or cry</td>
<td>1.85</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61.5%</td>
<td>66.7%</td>
</tr>
<tr>
<td>10.</td>
<td>Headache</td>
<td>1.62</td>
<td></td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53.8%</td>
<td>44.9%</td>
</tr>
<tr>
<td>11.</td>
<td>Sleep disorder (difficulty initiating sleep, difficulty maintaining sleep well, or need more sleep)</td>
<td>1.58</td>
<td></td>
<td>1.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52.6%</td>
<td>48.7%</td>
</tr>
<tr>
<td>12.</td>
<td>Anxiety</td>
<td>2.08</td>
<td></td>
<td>2.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>69.2%</td>
<td>70.5%</td>
</tr>
<tr>
<td>13.</td>
<td>Weight gain</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>66.7%</td>
<td>66.7%</td>
</tr>
<tr>
<td>14.</td>
<td>Depression (feeling sad or feel no hope in the future)</td>
<td>1.58</td>
<td></td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52.6%</td>
<td>32.1%</td>
</tr>
</tbody>
</table>

Table 4. Frequency Distribution of Premenstrual Syndrome (PMS) Based on Affective and Physical Symptoms for Pre and Post Information-Focused Therapy (IFT) at Female Students in SMK, Puragabaya, Bandung, West Java, Indonesia, April 2017 (n=26)

<table>
<thead>
<tr>
<th>No.</th>
<th>Symptoms of Premenstrual Syndrome (PMS)</th>
<th>Percent</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Affective</td>
<td>62.7%</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Physical</td>
<td>57.1%</td>
<td>57.1%</td>
<td></td>
</tr>
</tbody>
</table>
4. Bivariate Analysis

<table>
<thead>
<tr>
<th>Symptoms of Premenstrual Syndrome (PMS)</th>
<th>Mean Pre</th>
<th>Deviation Standart Pre</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective Symptoms</td>
<td>18.8</td>
<td>5.2</td>
<td>0.003*</td>
</tr>
<tr>
<td>Easy to anger</td>
<td>2.12</td>
<td>0.9</td>
<td>0.02*</td>
</tr>
<tr>
<td>Irritability</td>
<td>1.96</td>
<td>0.99</td>
<td>0.00*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.00</td>
<td>1.02</td>
<td>0.74</td>
</tr>
<tr>
<td>Sleep disorder</td>
<td>1.65</td>
<td>1.06</td>
<td>0.59</td>
</tr>
<tr>
<td>Depression</td>
<td>0.69</td>
<td>0.88</td>
<td>0.001*</td>
</tr>
<tr>
<td>Restlessness</td>
<td>2.62</td>
<td>0.63</td>
<td>0.001*</td>
</tr>
<tr>
<td>Change in appetite</td>
<td>2.12</td>
<td>0.99</td>
<td>0.78</td>
</tr>
<tr>
<td>Difficulties with concentration</td>
<td>2.10</td>
<td>0.97</td>
<td>0.86</td>
</tr>
<tr>
<td>Decreased interest in routine activities</td>
<td>2.00</td>
<td>0.98</td>
<td>1.00</td>
</tr>
<tr>
<td>Suddenly feel sad or cry</td>
<td>1.58</td>
<td>1.14</td>
<td>0.008*</td>
</tr>
</tbody>
</table>

* Paired Sample T-Test <0.05

The Bivariate Analysis in this study using Paired Sample t-test. Paired Sample t-test was used find out changes in proportion of symptoms before and after giving Information-Focused Therapy (IFT) with p value 0.003. p value in this study <0.05. So, there is a decrease of symptoms before and after IFT.

5. The Thematic Analysis of This Study

There were six themes that describe the experiences of adolescents who experience PMS namely:

- Theme 1: PMS perceived as a change that affects the psychological, behavioral and physical;
- Theme 2: PMS interfere activities and social relationships;
- Theme 3: Adolescents prefer non-pharmacological treatment to PMS;
- Theme 4: The Handling of PMS based on Family suggestions;
- Theme 5: IFT can decrease affective symptoms;
- Theme 6: Perception of adolescent being more positive after IFT.

DISCUSSION

Premenstrual syndrome (PMS) is a set of affective, behavioral and physical symptoms which appears in the luteal phase that can affect productivity and quality of life. This is in accordance with this research bahwa female students were felt symptoms of PMS in several days before their menstruation. From table 1 it could be seen that girls in SMK as much as 91.2% experience PMS where 47.8% were in the mild and moderate category of PMS, while as much as 43.4% were in the severe category of PMS or called Premenstrual Dysphoric Disorder (PMDD). Only a small proportion of female students were 8.8% without PMS.
Table 2 shows that the most PMS symptoms many perceived respondents were easy to anger, irritability, and restlessness, while for physical symptoms are often perceived were the breast tenderness and muscle or joint pain. The previous study reported that the symptoms of irritability is complained by teens that amounted to 58.5%\textsuperscript{13}. This is in accordance with the results of this study that female students in SMK Puragabaya most complained of symptoms easily irritable when experiencing PMS as much as 57.9%.

The participants felt physical changes when PMS such as abdominal pain, dizziness, back pain, stiffness, abdominal bloating, the appearance of acne, neck pain, swelling of the breast and legs, and malaise. In addition to physical changes, the participants also felt psychological changes that include irritability, often bad daydreaming, lack of concentration, easy to be hopeless, easy to forget, and moods change. And this study showed that behavioral changes which they felt such as lazy to did activities, insomnia, hypersonmia, and increased appetite. This is in line with the criteria of PMS diagnosis are divided into two, including affective symptoms and somatic symptoms, somatic symptoms include headache, breast pain, abdominal bloating and swelling of the extremities. The symptoms appear within five days before menstruation and disappear within four days of the onset of menstruation.\textsuperscript{7}

The most neglected or felt symptom was depression which was only 1.3%. Depression is a manifestation of psychological that can be caused presence of stress or stress experienced. Women with more stressor tend to complain of depression and mood changes during premenstrual. Stress can exacerbating premenstrual symptoms thus affecting hormone production and stimulates sex hormones such as the hormone cortisol, epinephrine and catecholamines, norepineprin, aldosterone and corticosteroids. This increased stress can worsening symptoms such as anxiety, anger and irritability.

The previous study reported that anxiety is expressed through physiological and psychological responses and indirectly through the development of coping mechanisms. The physiological response of the body by activating the autonomic nervous system (the sympathetic nerves and parasympathetic). The body's reaction to anxiety is fight or flight. When the brain cortex receiving the stimulus will be sent through the sympathetic nerves to the gland adrenal to release adrenaline or epinephrine. It is characterized by breath get deeper, pulse and blood pressure increase. Psychological response to anxiety will affect coordination and reflex motion. Severe anxiety will disrupt social relationships. Cognitive response from anxiety can affect thinking skills such as difficulties with concentration and memory. Affective responses can be expressed in form confusion, anger, irritability and excessive suspicion as being emotional reactions.\textsuperscript{14}

The impact of PMS to participant’s quality of life were it interferes on the interpersonal relationship between the participant with others and disrupt their activities sosial, be lazy to did activities and also lack of concentration in class. Previous studies have reported that the PMS will have a negative impact on the adolescent's academic and activity.\textsuperscript{8}

Some of the participants used non and a pharmacological treatments to reduce the symptoms. Non-pharmacological treatments such as massage on the area of the pain, took a rest or sleep, applied cajuput oil on the pain, drank warm water, did activities and sports, and listened to music. In other hand, participants also used pharmacological treatment by consumed analgesic to reduce the pain. Previous studies have reported that all forms of physical activity such as exercise can make women who experience PMS become more rilex because at the time of exercise will produce hormone endorphins by brain that can improve the improvement of liver function and reduce anxiety. The cajuput oil is consist of Menthol. The menthol can be used as herbal treatment for abdominal pain. Oil produced peppermint is powerful to overcome abdominal disturbances such as abdominal cramps.\textsuperscript{9}
The participants also used analgesic to reduce their pain. This analgesic was obtained by buying at drugs store or apotic. The reduction of pain when PMS can be done by pharmacological treatments before menstruation. The analgetic is a non-steroidal and anti-inflammatory drugs (NSAIDs) that inhibit prostaglandin production so as to reduce the pain.

The participants said that their reason for did intervention to reduce PMS was influenced by internal and external factors. Previous studies have reported that health behavior influenced by external and internal factors, external factors consist of environmental, social and cultural. Internal factors consist of knowledge, perception, motivation, intention and attitude. External factors in this study that some participants consumed analgetic because their mothers, sisters or classmates also did it. So, external factors was influenced by the surrounding environment, such as friends and family suggestion especially, her mother. Previous studies have reported that the surrounding environment plays a role in influencing the treatments of PMS. Internal factors in this study was they tend to did physical activities such as exercise because it would make their body be freshly. Also, the participants tends to applied the Cajuput oil in the area of pain because its oil could give hot effect and reduce the pain. The experience can influence a person's behavior because she has already experienced the problem so that he already knows what will happen. A person who has been experienced something will increase knowledge about its.

This study found that most of participants said the symptoms were reduced after they consumed analgetic, the symptoms were also reduced by massage and after applied the Cajuput oil on area of the pain. The Cajuput oil can increase muscle relaxation and reduce pain due to spasms or stiffness and provide a local warmth. In general, heat is useful for treatment. Heat relieves ischemia by decreasing contractions and improving circulation, can also cause the release of body endorphins to block the transmission of pain stimulation.

This study also found that most of respondents said the symptoms were reduced after giving Information-Focused Therapy. Information-Focused Therapy is one of non-pharmacological treatment for PMS handling, where this therapy can change perception someone to be better so, can change her attitude being more better. This is in line with this study, where based on Paired sample t-test was used find out changes of symptoms before and after giving IFT (p=0.003). There is a decrease of symptoms before and after IFT. And from result of in-depth interview, most participant said that her perception about PMS being more positive. They said that their symptoms of PMS are a normal condition as symptoms of PMS. The previous study stated that perception is a process by which a person organize in her mind, interpret, experience and cultivate a harbinger or in everything that happens around the environment. How things are affecting perception, will also be able to influence the behavior that will be chosen.

According to previous study reported that perception is a process which is preceded by the process of sensing, that is the process the acceptance of a stimulus by the individual through the sense device or so called sensory process. The process is an understanding of an information submitted by others who are mutually communicate or cooperate. So, everyone does not regardless of perception. This is line with this study that IFT affected adolescent’ perception about PMS and how to PMS handling. And then their perception could changed their attitude and behavior being more be better from before so, their symptoms of PMS could decreased.

CONCLUSION

Paired t-test was used find out changes of symptoms before and after giving IFT (p=0.003). There is a decrease of symptoms before and after IFT. Six themes were found: PMS perceived as a change that affects the psychological, behavioral and...
physical; PMS interfere activities and social relationships; Adolescents prefer non-pharmacological treatment to PMS; The Handling of PMS based on Family suggestions; IFT can decrease affective symptoms; and Perception of adolescent being more positive after IFT.

RECOMMENDATION

Experience adolescents who experience symptoms of PMS cause discomfort that interferes adolescent social relations and can increase because stress. The family is the nearest with adolescents, especially the mother, so the mother is expected to provide knowledge about menstruation before their children get menstruation so that the information received can be equipped them when they menstruate. Nurses and other health personnel the health care institution is expected to more actively participate to provide information is related reproductive health education. Information-Focused Therapy (IFT) effective in reducing PMS. Therefore, nurses have a role to apply IFT as one of non-pharmacological treatment for PMS. This study has only with one intervention for reduce PMS. So, expect this study can be considered for further research to be done further research related to PMS or other Intervention for reduce symptoms of PMS.

REFERENCES

