

REPRESENTATION OF THE LEVEL KNOWLEDGE OF ITEKES BALI STUDENT ORGANIZATION TO USE ACUPUNCTURE AS THERAPY IN DYSMENORRHEA

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ABSTRACT

Background: *Dysmenorrhea* is a pain in the lower abdomen during the menstrual cycle. The pain usually lasts before, during, and even until the end of the menstrual cycle. *Symptoms of nausea, vomiting, diarrhea, migraines, and dizziness often accompany Dysmenorrhea.* Adequate knowledge about managing menstrual pain or *dysmenorrhea* in health students is essential to help improve health education for friends, family, and communities who have complaints of *dysmenorrhea* they encounter. Adequate knowledge can stimulate the formation of good attitudes and motivation in implementing effective actions to increase the degree of healthy living. Acupuncture is a non-pharmacological therapy that can be used as a therapy for *dysmenorrhea*. **Aim:** To determine the represented level of knowledge of BEM and IKM Study Program administrators at ITEKES Bali on the use of acupuncture therapy for *dysmenorrhea*. **Methods:** This study is a descriptive quantitative study using a cross-sectional, the research population is all students who are members of the BEM and IKM Study Program organizations at ITEKES Bali. Sampling by purposive sampling with a research instrument in the form of a questionnaire. **Result:** the data analysis showed, that it was found that the knowledge of the ITEKES Bali student organization was at a good level of knowledge, namely 93.8% of 65 respondents. Meanwhile, 6.2% of the 65 respondents are at the level of sufficient knowledge. **Conclusion:** The representation level of knowledge of the ITEKES Bali student organization is in a good category.

Keywords: Knowledge., Acupuncture., dysmenorrhea

INTRODUCTION

Menstruation is a physiological change in a woman's body through the regular discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina and influenced by reproductive hormones, such as FSH-Estrogen or LH-Progesterone¹⁻³. Menstruation occurs every month during the reproductive period, starting at puberty (menarche) and ending at menopause, except during pregnancy. Some women who experience menstruation will experience pain during menstruation called dysmenorrhea. Almost all women experience discomfort in the lower abdomen during menstruation. Dysmenorrhea occurs due to the excessive release of a particular prostaglandin, prostaglandin F2 alpha, from the endometrial cells of the uterus⁴⁻⁶. Several studies suggest that severe menstrual pain is associated with absenteeism from school or work and limitation of other daily activities⁷. Dysmenorrhea can be

divided into primary and secondary dysmenorrhea⁽⁸⁾. In Indonesia, the prevalence of dysmenorrhea shows that dysmenorrhea sufferers reach 60-70% of women from all over Indonesia. Meanwhile, the incidence of primary-type dysmenorrhea in Indonesia is 54.89%, and the incidence of secondary-type dysmenorrhea is 45.11%⁽⁹⁾. According to the Bali Province Health Service in 2014, the incidence of dysmenorrhea in Bali was 48.05%⁽¹⁰⁾.

The use of pharmacological therapy can cause side effects such as stomach irritation, intestinal colic, diarrhea, and bronchial asthma attacks. To reduce the side effects of using pharmacological therapy in cases of dysmenorrhea, it can be replaced by using non-pharmacological therapy such as acupuncture. Acupuncture can reduce the severity and intensity of pain, reduce the use of painkillers, overall improvement in menstrual symptoms, and improve quality of life, as measured by an index of improved health status, with minimal side effects on the body. Acupuncture may improve women's mood symptoms but further appropriate trials are needed to examine the effect on reducing

menstrual pain ^(11,12). Acupuncture treatment might reduce menstrual pain and associated symptoms more effectively compared with no treatment or NSAIDs, and the efficacy could be maintained during a short-term follow-up period. The safety of acupuncture appeared because a few mild adverse events were reported ⁽¹³⁾. Acupuncture could be considered an effective treatment modality for the management of primary dysmenorrhea in reducing all the symptoms such as the visual analog scale score for pain, menstrual cramps, headache, dizziness, diarrhea, fainting, mood changes, tiredness, nausea, vomiting ⁽¹⁴⁾. Acupuncture is a treatment carried out by inserting needles at certain points on the patient's body, ears, head, around the soles of the feet, and hands to influence/correct errors in the flow of the body's bioenergy called Qi. In Eastern medical science, dysmenorrhea is the result of the impaired circulation of Qi (energy) and Xie (blood), so the therapy aims to improve the circulation of Qi and Xie. Acupuncture aims to improve the homeostasis of Qi in the body wardani ^(15,16). Treatment of dysmenorrhea using acupuncture is by inserting needles at certain points. Acupuncture will stimulate target organs through humoral and autonomic nerve reflex pathways, so that cyclic adenosine monophosphate (AMP) increases, resulting in the release of mediators from mast cells being inhibited ⁽¹⁷⁾. The preliminary study conducted, that there are still many students at the Institute of Technology and Health Bali who do not know that acupuncture can be used as an alternative therapy in cases of dysmenorrhea. The selection of BEM and IKM in this study is expected to represent the level of knowledge of ITEKES Bali students regarding treating dysmenorrhea with acupuncture. So the aim of this study is "An overview of the level of knowledge of all BEM and IKM of ITEKES Bali regarding the use of acupuncture therapy for dysmenorrhea".

MATERIAL DAN METHOD

This research is a quantitative descriptive study using a cross-sectional approach. The sampling technique used purposive sampling with a total of 65 respondents. The variable in this study is the level of knowledge of student organizations regarding acupuncture therapy for Dysmenorrhea. This research instrument uses a questionnaire consisting of 30 statements with entries in the form of true or false statements about acupuncture therapy for dysmenorrhea. The questionnaire used has been tested for reliability with Cronbach's alpha = 0.529 so it can be declared reliable. Statistical tests use SPSS Statistics 22 application software

RESULT

<http://ojs.unud.ac.id/index.php/eum>
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An overview of the characteristics of respondents based on the questionnaire that distribution was obtained based on organizational bodies and study programs.

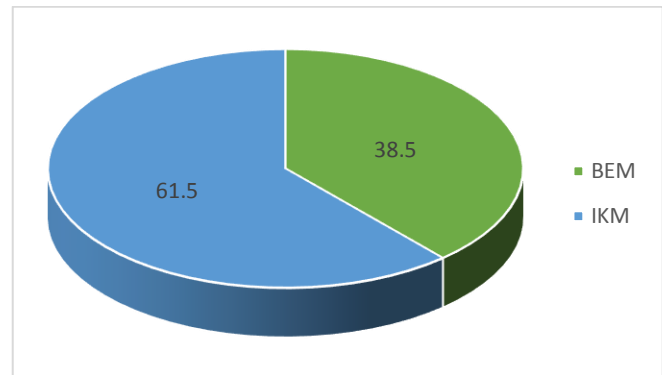


Figure 1. Frequency of student organization board

In the diagram above, it can be seen that the student organization that most frequently filled out this questionnaire was the Students Association of study program with a percentage of 61.5% of the 65 total respondents (figure 1).



Figure 2. Frequency of distribution of the study programs

Based on the picture above, it can be seen that the distribution of members of the Student Organization is dominated by the Undergraduate Nursing Study Program, obtained results are 53.8% (35 out of 65 respondents), followed by the Undergraduate Clinical and Community Pharmacy Study Program with a percentage of 20% (13 out of 65 respondents). Meanwhile, the study program with the lowest number of participants in student organizations at ITEKES Bali based on respondents' willingness to fill out the questionnaire was the Bachelor of Food Technology at 6.2% (4 out of 65 respondents).

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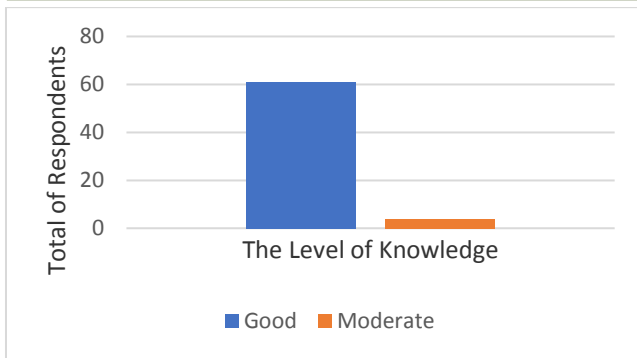


Figure 3. Frequency of level of knowledge

Figure 3 represents the highest level of knowledge of student organizations is in the score range of 21-30 which is assumed to be a good level of knowledge (61 out of 65 respondents). This was followed by the moderate level of knowledge of 4 students out of 65 respondents.

DISCUSSION

The diversity of the number of respondents in this study was influenced by the larger number of student association members in the study program and each study program had its own named IKM Study Program. Apart from that, IKM has an organizational structure, similar to BEM. The difference between both is only its position is at the study program level. Meanwhile, BEM is an organizational body consisting of selected students to represent each study program located at the institutional level. On the total score of student's knowledge level, the highest score was 29, while the lowest score was 17 out of 30 the highest score on the questionnaire. From the data above, there are still scores in the adequate range because there are still students who do not know that acupuncture can be used as a non-pharmacological therapy to reduce pain caused by dysmenorrhea. To increase student knowledge, it is necessary to provide outreach or education about treating dysmenorrhea with acupuncture therapy to students. Although not considered a life-threatening disorder, menstrual pain can affect the quality of life, activities, and social relationships of women who experience it ⁽¹⁸⁾.

Acupuncture is a traditional Chinese medicine method where the treatment method uses various perspectives and philosophies in the therapy such as meridians. Acupuncture describes the human body as holistic, where when one part of the body experiences a problem, it will be seen on the body and related organs receive therapy to overcome the health problems faced ⁽¹⁹⁾. Acupuncture points work through by causing primary stimulation in active cells which can be stimulated by acupuncture to trigger biomolecular messengers. Acupuncture points located on meridian pathways

specifically have a flow of electrons and conductive materials that can cause intercellular signaling. Organs injured by acupuncture can cause specific and morphofunctional effects, causing stimulation and suppression so that physiologically it can normalize the hypothalamic pituitary ovarian (HPO) axis through the release of peptide hormones (opioids) including beta-endorphins in the central and peripheral nervous systems. Abnormalities in the pituitary system can inhibit the production of the hormone GnRH, which regulates the menstrual cycle and fertilization ⁽¹⁵⁾. Through the release of nitric oxide (NO) mediators from the vascular endothelium, vasodilation of blood vessels occurs, thereby relaxing the uterine muscles and inhibiting excessive uterine contractions, increasing relaxation and reducing the pressure of smooth muscle contractions and increasing blood circulation. This will fulfill the blood supply (oxygen and nutrients) in the female reproductive system so that it will indirectly reduce pain in women who suffer from menstrual pain ^(20,21).

Reproductive health education and exposure to dysmenorrhea are very important to increase student's knowledge, especially female students, regarding this condition and its appropriate treatment ⁽²²⁾. This will be implemented in terms of increasing the knowledge of teenagers and women of reproductive age regarding reproductive health problems in general and dysmenorrhea conditions in particular. Student representatives are expected to be able to provide education to their friends outside the student organization who do not yet know about the benefits of acupuncture. According to Lawrence Green's theory, one of the factors that influences behavior is predisposing factors which include knowledge, attitudes, beliefs, and values. Knowledge or cognition is a very important domain in shaping a person's actions ⁽²³⁾. Through increasing knowledge, health behavior can be improved. Knowledge is various phenomena encountered and obtained through sensory observation. Knowledge arises when a person uses their senses or reason to recognize certain objects or events that humans have never seen or felt before ⁽²⁴⁾. Someone will increase their knowledge if they often get information ⁽²⁵⁾. Through health promotion, it is used as behavior that motivates the desire to improve welfare and the potential for realizing human health ⁽²⁶⁾. This can influence the behavior of how to properly handle dysmenorrhea problems experienced directly by themselves or others.

Figure 3 shows, that the knowledge of the ITEKES Bali Student Organization is at a good level of knowledge

(93.8% of 65 respondents). This can be influenced by the classroom learning and health education that some students have received. In addition, Knowledge is influenced by the cognitive dimensions in the taxonomy, namely memorizing, understanding, applying, analyzing, evaluating, and creating. Based on these dimensional aspects, it can be concluded that the information stored in long-term memory for most students is good.

CONCLUSION

Based on the results of data analysis, the level of knowledge of student organizations is at a good level of knowledge with a percentage of 93.8% of the 65 respondents.

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