

# Socialization of Using PASHA (Pain Assessment, Stimulation and Healing Application) as a Complementary Based of Pain Management

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**Abstract.** Pain is one of the symptoms that is often found in any changes in body health. This PKM aims to provide the training to increase knowledge through socialization and outreach to the people at Campus and community in Bukittinggi. From this explanatory background, we conclude that using application is more effective to manage the pain. The purpose of implementing this PASHA is to help the pain problems with promotion methods by using complementary therapies on application. The method that has been used in this PKM includes scialization related to Complementary Based of Pain Management by using PASHA (Pain Assessment, Stimulation and Healing Application). The evaluation results showed a reduction in pain intensity by measuring the pain scale before and after being given pain management interventions through the PASHA (Pain Assessment, Stimulation and Healing) application. A measurement was use NRS and the average pain before and after is calculated. The results obtained were a decrease in the average pain before and after using PASHA. It is hoped that the campus and surrounding community will be able to continue the activities of using this application in pain management so that it can be used to improve the level of health in the community.

**Keywords:** PASHA application, complementary, pain management, socialization

## 1 Introduction

Pain is a sign or symptoms have a role important in medical procedures [1]. Pain is one of the symptoms that is often found in any changes in body health. Pain management is carried out pharmacologically and non-pharmacologically. As a Non-pharmacological step, pain management can be done by applying complementary therapies and alternative. Relaxation is one part of complementary therapy plays a role in increasing body chemistry, especially endorphins. The body's stress system includes catecholamine, norepinephrine, and epinephrine, which are regulated by the sympathetic nervous system (SNS), and glucocorticoids, which are regulated by the hypothalamus – pituitary - adrenals (HPA). The HPA shaft holds the important role to maintain body homeostasis as response to stress. Stress leads to activation of the HPA axis, increasing cortisol Peripheral disease is known to also cause an increase in blood pressure. Several studies have shown that complementary therapies can help reduce physical and psychological discomfort. Efforts to overcome source of anxiety and depression patients often seek knowledge, psychotherapy, and techniques cognitive behavior which is included in the category of Complementary and Alternative Medicine (CAM) which in recent years has become a trend, especially in patient's hand [2].

Increasing community needs and the development of research on complementary therapies provides an opportunity for nurses to participate according to community needs. Nurses can act as consultants for clients in choosing appropriate alternatives or help provide direct therapy. However, this needs to be developed further

through research (evidence-based practice) so that it can be used as a better nursing therapy [3]. Complementary nursing is one of basic knowledge that can be used on pain management [4].

Pain is usually classified as acute or chronic. Acute pain occurs suddenly and is usually the result of an obvious cause such as injury. Acute pain resolves with healing of the underlying cause. Chronic pain lasts for weeks or months and is usually associated with an underlying condition, such as arthritis. The severity of chronic pain can be mild, moderate, or severe [5]. Pain treatment depends on the cause and the overall health of the affected individual. The primary goal of pain treatment is to return the patient to optimal function. Pain treatments can be classified as non-medical or medical [6].

Non-medical treatment options for various forms of pain include observation, rest, stretching, exercise, weight reduction, application of heat or ice, and a variety of alternative treatments including acupuncture, chiropractic, massage, manipulation, electrical stimulation, biofeedback, hypnosis, and surgical procedures. Medical treatment includes three basic forms of medication to treat pain (analgesics): Non-opioid medications, opioid medications, and medications used to complement other analgesics (adjuvant medications) [7]. In this PKM activity, we used PASHA (Pain Assessment, Stimulation and Healing Application) as a web based application where non-pharmacological pain management techniques will be presented. This technique is a form of complementary therapy that people can use to overcome and manage their own pain by using application.

PASHA application is a system that helps the community act in improving health for treating pain problems. So far, handling a health assessment of pain is only carried out based on guidance from health workers without being supported by data recording and evaluation systematic. PASHA application were designed to make things easier for health services and the community the process of pain assessment, pain management and evaluation obtained after carrying out points from pain management [8]. The presence of the PASHA application will help pain assessment recording system yet still being done manually by health workers turns into systemized recording. For health workers, this systematic recording of pain study data will make the work of health workers easier regarding services and data collection to reduce pain. For the community it was used in terms of dealing with pain. It can also be done without the assistance of a specialist nurse.

This PKM aims to provide the training to increase knowledge through socialization and outreach to the people at Campus and community in Bukittinggi. From this explanatory background, we conclude that using application is more effective to manage the pain. The purpose of implementing this PASHA is to help the pain problems with promotion methods by using complementary therapies on application. The contribution of partners' participation in implementing this service is providing permission and providing the residents' time so that it can be done counseling can be carried out, facilitating a place for residents to gather while maintaining distance so that counseling can be carried out simultaneously, and helping provide data in the form of complaints felt by community at Campus in Bukittinggi. Hopefully this activity is useful for increasing the knowledge and experience of effective pain management to improve indicators of the quality of nursing services. In this activity there are several objectives that the drafting team wants to convey in preparing this PKM as below: (1) As a lesson about pain felt by society, (2) As a guide in assessing pain that occurs to oneself, (3) As a guide in managing pain when pain occurs within oneself, (4) As a guide in using the PASHA application (Pain Assessment, Stimulation and Healing Application).

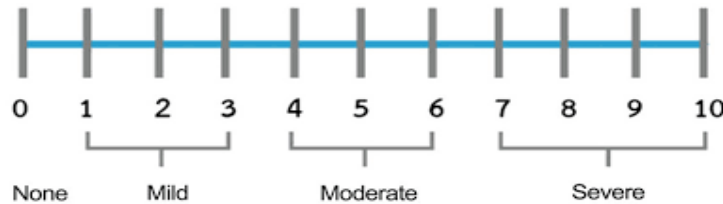
## 2 Method

In community service activities carried out in the Fort De Kock Bukittinggi University campus community and the surrounding general community, the team took several implementation method approaches to produce effective use of technology and increase knowledge about pain management through the use of PASHA. The initial stage of implementation was to conduct an initial survey regarding the pain problems of female female students related to menstrual pain, headaches, etc. Then, application design related to pain management was carried out, creation of the PASHA application, in this PASHA application there are several complementary based pain management methods, the choice of these methods is:

- a. Deep Breathing Relaxation Technique
- b. Progressive Relaxation
- c. Warm Compress
- d. Aromatherapy
- e. Guided Imagery
- f. Accupressure
- g. Murrotal Al-Qur'an Listening Therapy
- h. Hypnocommunication

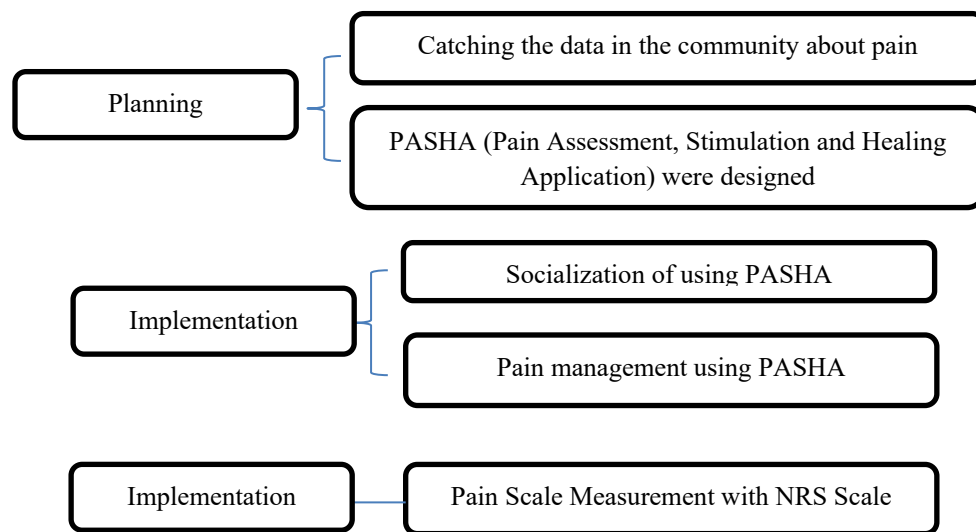
Therapy is carried out when teenagers feel menstrual pain. Next, pain management measurements were carried out. Then, participants were asked to try the application and choose pain management according to their wishes to reduce the pain they felt. Finally, evaluate the results of activities in using the PASHA application as an effort to reduce pain in the community around the campus.

Pain measurement was carried out using the Numeric Rating Scale pain questionnaire. The numeric pain scale (NRS) is the simplest and most commonly used scale to measure a patient's pain. There are eleven number options on this numerical scale, ranging from 0 to 10, with 0 being "no pain" and 10 being "the worst pain imaginable." The patient selects (verbal version) or draws a circle (written version, Fig. 1.) the number that best describes the intensity of the pain felt. The advantages of this pain scale are reproducibility, easy understanding, and sensitivity to small changes in perceived pain. This scale is more likely to be used in adults [6]. The following is an image of the numerical pain scale used in the application as a tool to measure the intensity of pain felt:



**Figure 1.** Numerical pain scale NRS (Numeric Rating Scale)

In carrying out activities, the team mapped out the stages of PKM activities which were carried out in 3 stages, namely Planning, Implementation and Evaluation. The activity implementation scheme can be seen as follows:



**Figure 2.** Scheme of Implementation of PKM Activities

### 3 Results and Discussion

Implementation of PKM Activities related to Socialization of Using PASHA (Pain Assessment, Stimulation and Healing Application) as a Complementary Based of Pain Management received a positive response from the community and students at the College.

In general, community service activities in the form of PKM run smoothly. Activities are carried out in accordance with the planned activity mapping. An initial survey on pain knowledge and pain management conducted on 45 students at the Fort De Kock University campus and the community around the campus obtained data on the characteristics of participants who felt pain. The data is presented in the following table:

**Table 1.** Characteristic of PKM Participants

Variable	Mean (SD)	f	%
Usia	19.89 (0.690)		
<b>Knowledge of Non-Pharmacological Pain Management</b>			
Know enough		14	31
Do not know		16	36
Know		12	26
Very know		3	7
<b>Knowledge of Pain Control Strategies</b>			
Know enough		14	31
Do not know		25	56
Know		6	13

From the table above, it is known that the average age of respondents, in this case young women at school, is at an average age of 19.89 (SD=0.690), where this age category is the late teenage to early adult age category. Furthermore, the majority of students do not know much about pain management that does not use medication (non-pharmacological), namely 36%. Regarding knowledge about pain control strategies, it was found that 56% of young women did not know about this matter.

Pain management experience in adolescents depends on the level of knowledge they have. Adolescents need pain management education specifically for adolescents to improve skills and knowledge in dealing with perceived pain problems. The existence of health education and outreach activities that involve adolescents in treating their own pain with various new interventions has proven to be useful in increasing adolescent knowledge [9]. It was found that self-efficacy is a mediator to improve self-management of perceived pain optimally to improve the quality of life of adolescents. There are three factors in decision making for pain management in adolescents, namely personal, social and psychological factors [10]. Adolescents who have the initiative in seeking information about pain management are being more knowable. It is hoped that parents, schools and health workers will provide knowledge to adolescents who experience any pain to be able to carry out pain management [11].

Participants looked enthusiastic about participating in activities and actively asked questions related to the PASHA. The following is a picture of the outreach activities that have been carried out :



**Figure 3.** Activities to Provide the Information About PASHA on Campus Community

The use of the PASHA (Pain Assessment, Stimulation and Healing) application in pain management can be done easily by teenagers at school to manage the pain they feel. This is also valuable in increasing the knowledge of young women in pain management. Furthermore, one of the non-pharmacological pain management techniques, namely guided imagery contained in the PASHA application, is considered to be able to reduce the pain felt when young women experience menstrual pain (dysmenorrhea) [12].

Furthermore, counseling activities were also carried out regarding PASHA application by put out the flyer about PASHA usage. The following is Standard Operational Procedural of PASHA:



Figure 4. Procedures for using PASHA

### 3.1 Evaluation of Activities and Follow-Up Plans

The evaluation results showed a reduction in pain intensity by measuring the pain scale before and after being given pain management interventions through the PASHA (Pain Assessment, Stimulation and Healing) application. A measurement was use NRS and the average pain before and after is calculated. The results obtained were a decrease in the average pain before and after with a mean difference of 2.25. Furthermore, in the bivariate analysis using the dependent t-test, a p-value was obtained, namely 0.0001 at a significance level of  $\alpha = 0.05$ , so it can be concluded that there is a significant effect of using the PASHA application in reducing pain.

The Follow-Up Plan for PASHA usage about pain management based on complementary methods activities was hopefully this application can be used generally for all community with pain. The use of the PASHA (Pain Assessment, Stimulation and Healing) application in pain management can be done easily by people everywhere to manage the pain they feel. This is also valuable in increasing public knowledge in carrying out pain management.

## 4 Conclusions

Community Service Activities with the theme Socialization of Using PASHA (Pain Assessment, Stimulation and Healing Application) as a Complementary Based of Pain Management received a positive response from the community and students at the College received a positive response from the community. This PKM activity ran clearly and obtained various benefits for both the students and educational institutions. Learning and educational experiences as well as application usage can increase knowledge about effective and complementary methods of pain management. It is hoped that the campus and surrounding community will be able to continue the activities of using this application in pain management so that it can be used to improve the level of health in the community.

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