COMMUNITY EMPOWERMENT THROUGH PREGNANCY EXERCISE TO PREGNANT MOTHERS AND HEALTH CADRES IN TANJUNGPURA VILLAGE, KARAWANG DISTRICT

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Abstract, **Background:** Safe physical exercise during pregnancy (pregnancy exercise) can strengthen uterine muscle and shorten the duration of delivery[1]. However, only 40% of pregnant mothers in Tanjungpura village at Karawang district participated in pregnancy exercise program[2]. This probably due to limited number of competent pregnancy exercise trainers in the village. Our project aim is to improve health cadres capacity to provide pregnancy exercise to pregnant mothers Tanjungpura.
Method: We invited 15 health cadres and 20 pregnant women to participated in pregnancy exercise training. The training was conducted once a week for 7 weeks at a village hall and Posyandu. Training methods includes: lectures, demonstration of pregnancy exercise, practices, and interactive discussion. A pre and post-test assesment was conducted to evaluate the outcome of training. Pre and post-test assesment were conducted to evaluate participant's knowledge before and after the training.
Result: Out of 15 cadres and 20 pregnant complated the training. The average post-test score for cadres increased by 69% from 5,2 to 8,8. among pregnant woment, the average of post-test scores increased higher (85%) from 4,7 to 8,3.
Conclusion: Health cadres can be trained and teach pregnancy exercise to pregnant mothers in their neighbourhood. In areas where number of health care wokers is limited, empowering community health cadres to actively participated in improving maternal health is a potential strategy.

Keywords: Training, pregnancy exercise, cadres, pregnant women

Background

The biggest cause of maternal death in Indonesia is still bleeding (28%), eclampsia (24%), infection (11 %), prolonged labor (5%), and abortion (5%) (Ministry of Health, 2012). One of the causes of bleeding during labor is the weakness of the uterine wall muscles which causes the uterus to be unable to contract properly, this condition is often caused by fatigue in the mother due to prolonged labor. One of the efforts that pregnant women can do to strengthen the abdominal wall muscles, ligaments, pelvic floor muscles and surrounding muscles is to do pregnancy exercises correctly and regularly. During pregnancy there are changes in almost all systems of the mother's body, especially the hormonal system, cardiovascular system, muscles and joints. These changes can be anticipated by doing

good, correct, measurable and regular physical exercise according to the phase of pregnancy up to the puerperium. Several studies have shown that physical exercise during pregnancy can reduce the incidence of post-term labor and improve APGAR scores (Kemenkes RI, 2010). The results of Pertiwi's research, R (2018) showed that there was a significant relationship between pregnancy exercise and the length of the first stage of labor (Pv = 0.00). Pregnancycan also help reduce the incidence of prolonged labor

exercise by 5.5 times compared to mothers who do not participate in pregnancy exercise (Yuniastari, 2013). The exercises performed in pregnancy gymnastics aim to make pregnant women gain strength and good muscle tone, good breathing techniques during the labor process (Maryunani, 2011). The recommendation for pregnancy exercise is aimed at pregnant women with normal conditions, and there are no complications (Ministry of Health, 2010).

The results of research in the *American Journal of Obstetrics and Gynecologists (ACOG)* (1989) showed that pregnant women who did pregnancy exercise frequently and regularly during the final trimester of their pregnancy did not experience pain during childbirth compared to pregnant women who did not do pregnancy exercise regularly. This happens because of the increase in levels of *endorphins* in the mother's body during exercise which functions as a natural pain reliever (Hanton, 2001). *The American Health Journal (1993)* reported the results of a two-year study in New York, which showed that pregnant women who did exercise five days a week for 30 minutes, could give birth to larger and healthier babies *(Hanton, 2001). Varney* (1997) explains some of the advantages of pregnancy exercise for both mother and fetus, namely reducing the number of

abnormalities, heart rate, problems with the umbilical cord and meconium, reducing the use of maternal energy, reducing pain, and improving APGAR scores and fetal psychomotor, *Hanton (2001).*

Research results Dr. Kathleen Vaughan (Brayshaw, 2008) on a group of pregnant women, showed that women who followed the exercise program, were shown to have a shorter labor period and fewer interventions and a faster recovery period. ACOG recommends exercise as a preventive effort for mothers so that the process of pregnancy and childbirth takes place naturally, and reduces complications due to childbirth (Widyawati, 2013).

Pregnancy exercise in Indonesia is part of antenatal care (ANC) which should be carried out by every institution providing maternal health services (Dep.Kes, 2009). Tanjungpura Health Center provides antenatal care services twice a week, and pregnancy exercise is one of the activities that is routinely given once a month.
Community empowerment is an important part of health promotion, and will give better results if the implementation involves partnerships, appropriate methods and techniques (Kemenkes RI, 2011). Community empowerment through partnerships with cadres in the practice of pregnancy exercise really needs to be encouraged and cultivated for pregnant women in the second and third trimesters, considering the great benefits for the health of the mother and fetus.

Tanjungpura Village has 95 active cadres who can be empowered to assist health workers in developing health programs in their area. Preliminary study conducted on 33 pregnant women in Tanjungpura village, only 13 people (39.4%) who did pregnancy exercise, the rest (60.6%) did not do pregnancy exercise.
Based on the above background, we are interested in applying the results of our research into community empowerment activities through pregnancy exercise training for posyandu cadres and pregnant women in the Tanjungpura sub-district area. The purpose of this activity is to empower the community through pregnancy exercise training for cadres and pregnant women in the II-III trimester in the Tanjungpura sub-district, West Karawang sub-district, Karawang district. The specific purpose of this activity is to increase the knowledge and skills of cadres and pregnant women regarding pregnancy exercise.

Method

This community service activity is a research-based activity regarding the effect of pregnancy exercise on the duration of labor. This activity was applied through training activities involving 15 partners I (cadres) and 20 partners II (pregnant women). This activity is carried out through several stages which include: preparation, implementation, evaluation, preparation and submission of activity reports.

a. The preparation stage includes: pengkajian needs in the field, in coordination with the parties involved (head of health centers and midwives coordinator puskesmas

Tanjongpura, village heads Tanjongpura, and midwives Tanjongpura, develop proposals Science Community-Based (IbM), preparing extension materials, modules and pregnant exercise videos and preparations for pregnant exercise demonstrations, make agreements regarding training targets, training facilities and facilities to be used, prepare training location permits and activity Implementation Team assignments, and make an IbM activity schedule for the IbM team.

b. The implementation stages include: frequency of training every week for seven meetings (9 July to 28 August 2018), the training time starts at 09.00-11.00, located in the Tanjungpura Village Hall and at the Dahlia posyandu, the training target is 15 Posyandu cadres representing several posyandu in the vicinity and 20 people pregnant women whose gestational age is more than 23 weeks. Facilities and infrastructure Facilities for training activities include: study room/hall, table, chairs, laptop, LCD, several mattresses and sound system, as well as training equipment such as ATK, pregnancy exercise module, pregnancy exercise video, and attendance list of the implementing team and training participants. The methods used are question and answer lectures, interactive discussions, the use of pregnancy exercise modules, viewing videos and demonstrations of pregnancy exercise. The initial activity was started by conducting a pre-test evaluation on cadres and pregnant women, followed by the provision of training materials and a demonstration of pregnancy exercise ending with a post-test. All participants were asked to do independent practice.
c. The evaluation stage is carried out on the process and results of the activities, and evaluation of the training targets includes the evaluation of theory with pre-test and posttest, evaluation of the use of the pregnant exercise module and the practice of pregnant exercise by cadres and pregnant women.

Result

This community service activity has been carried out in the form of pregnancy exercise training with the target of cadres and pregnant women. All participants can follow the training activities to completion for seven meetings. The results of the training activities are as follows:

a. The IbM team has delivered material on pregnancy exercise and pregnant exercise demonstration practice to partner I (cadres) and partner I assistance in delivering pregnancy exercise material to partner II (pregnant women). The material presented includes the theory of pregnancy exercise, the practice of pregnancy exercise, and how to use the pregnancy exercise module.
b. The training material was delivered by the IbM Team through power point slides with lecture methods and interactive question and answer and discussion, the pregnancy exercise demonstration was carried out by first showing a pregnant exercise video using an LCD, then the trainer demonstrated the pregnancy exercise movements in partner group I (cadres).
c. Increased ability of Partners I and II in practicing pregnancy exercise well. In this pregnancy exercise training, trainees are required to practice pregnancy exercise directly, with the aim that participants are expected to be better able to practice pregnancy exercise safely and correctly. Training is a short-term educational process that combines theoretical and practical learning so that training is a factor that can increase one's knowledge. Training with the direct demonstration method can improve knowledge and better skills because the trainees are guided directly by competent trainers (Larasati, 2018).
d. Increased knowledge of Partners I (cadres) and partners II (pregnant women) regarding pregnancy exercise materials and how to use the pregnancy exercise module. According to Notoatmodjo (2005), training has an important objective to increase knowledge and skills as a criterion for the success of the overall health program. The purpose of pregnancy exercise training for posyandu cadres and pregnant women is also in accordance with the statement from Noto Atmojo, which is to improve the ability of posyandu cadres in managing and delivering services to the community. Training is a short-term educational process that unites learning in theory and practice, so that training is a factor that can increase one's knowledge (Larasati, 2018).
e. The implementation of assistance by the IbM Team to partner I in delivering pregnancy exercise materials using the pregnancy exercise module, video shows and live pregnancy exercise demonstrations. The use

of modules as a learning or training method is quite effective in helping trainees understand the training material well, this is supported by Somantri's research (2015) which states that giving modules can be useful, and participants can learn independently and can learn them outside of training time . The educational method using video has its own advantages, namely that participants can learn independently using videos anywhere and anytime. Video training is also an effective method of teaching trainees to learn various skills.

f. Pre-test and post-test scores were obtained from partner I (cadres) and partner II (pregnant women) with a fairly high difference in scores, as shown in table 3.1.

Table 1. Pre-test and Post-test Knowledge of Pregnancy Exercises for Cadres and Pregnant Women

No	Target	Pre-Test	Mean Value Post-Test Mean Value
1	Cadre	5,20	8,87
2	Pregnant Women	4,71	8,30

Table 3.1 shows the post-test score for cadres and pregnant women is higher than the pre-test score , namely 8.87 cadres and 8.30 pregnant women. The increase in knowledge of the training participants is in accordance with the theory presented by the Center for Health Education and Training (2002) that cadre training can help create village health cadres who have good knowledge and skills.

g. Increase good cooperation between the Karawang Midwifery Study Program and the Tanjungpura Health Center, Tanjungpura Village and Partners I and II.
h. There is documentation (photos and reports) of the process and results of community service activities. i. The output achieved in this IbM activity is the realization of a pregnancy exercise module for cadres and pregnant women.

Conclusion

Community service activities in the form of pregnancy exercise training for cadres and pregnant women in the second and third trimesters, are a form of community empowerment activity to improve the health status of the community, especially pregnant women in an effort to reduce the high mortality rate of pregnant women due to pregnancy. long labour. Pregnancy exercise training for target partners I (Posyandu cadres) through the use of pregnancy exercise modules and videos can be a tool/instrument for cadres in teaching pregnancy exercise practices to pregnant women at any time in their neighborhood.

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