

Progressive Muscle Relaxation (PMR) Training for Family with Pregnant Mothers as An Effort to Increase Attendance to The Impact of Pandemic in Tasikmalaya

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Abstract

Community health center (puskesmas) is the front line in providing health services to the community, including pregnant women. However, during the Covid-19 outbreak, forcing people to keep their distance from other people, wear masks, and prevent crowds, Puskesmas has been unable to optimally provide health services to pregnant women who will check their pregnancies. In addition, the long and uncertain pandemic situation, and the high potential for transmission are stressors that can have an impact on discomfort in the form of anxiety and fatigue for pregnant women which will encourage various problems during pregnancy until delivery. Therefore, the purpose of this community service is to increase the knowledge, attitudes, and skills of pregnant women and their families and the cadres in reducing the level of fatigue due to pregnancy, through planned training activities, increasing public awareness, and participation in maintaining the health and welfare of pregnant women as an effort to reduce morbidity. pregnant mother. The action was carried out in Setiawargi village, Tamansari Tasikmalaya. The method used is training in small groups directly using demonstration techniques by devotees and red demonstrations by pregnant women and the cadres. The media used for the training were audio-visual presentations about the concept of changes in pregnancy, videos on how to do PMR, and reading materials in the form of leaflets and pocketbooks. The activity results showed an increase in the knowledge and skills of pregnant women and their families, and the cadres after the training activities were carried out.

Keywords: fatigue, knowledge, pregnant mother, PMR, skill

INTRODUCTION

In March 2020, WHO declared the coronavirus outbreak a global public health emergency or pandemic (WHO, 2020b; Taghizadeh-hesary & Akbari, 2020). This is because coronavirus disease 19 (COVID-19) is a highly contagious viral infection (WHO, 2020a). The government has implemented “work from home” through Presidential Decree No. 7 of 2020 for all government and private employees (Pajariato et al., 2020). This policy resulted in people experiencing changes in their activities and travel during the COVID-19 pandemic (Irawan et al., 2021). Work from home is a call to stay at home including avoiding crowds, improving physical health, and preventing unnecessary travel (Sumaedi et al., 2020). The state of the COVID-19 pandemic, which requires all residents, including pregnant women, to always stay at home, makes mothers anxious.

Fatigue is a common symptom during pregnancy. The prevalence ranges from 65% - 77.9% (Bai et al., 2016; Chou, Kuo, & Wang, 2008; Gholamhossein Mahmoudirad et al., 2017; Nazik & Eryilmaz, 2014; Tsai, Lin, Kuo, & Thomas, 2012). Some women may feel tired throughout their pregnancy, while some may not feel tired at all. Although experiences with fatigue tend to vary, most women will feel more tired than usual during their pregnancy. Fatigue during pregnancy is most common during the first trimester and tends to disappear during the second trimester, but usually returns in the third trimester (Gholamhossein Mahmoudirad et al., 2017).

Fatigue that occurs during the first trimester is mainly related to metabolic changes, changes in adaptation, and hormonal changes released by the placenta. Meanwhile, fatigue in the third trimester is usually secondary to nocturia, weight gain, gastrointestinal problems, sleep disturbances caused by fetal movement, uterine contractions, and leg muscle cramps (Gholamhossein Mahmoudirad et al., 2017).

Fatigue during pregnancy has different negative consequences for pregnant women, including irritability, decreased ability to perform activities of daily living, decreased libido, reduced sleep

quality, helplessness, decreased quality of life, and postnatal emotional and psychological imbalances. Chien, LY, & Ko, YL, 2004). Furthermore, it can even harm the pattern of uterine contractions during labor (Ebrahimzadeh S et al., 2012).

Based on a 2019 study on pregnant women who experience fatigue due to pregnancy, the quality of their fatigue by giving Progressive Muscle Relaxation (PMR). The results showed that PMR was effective in reducing complaints of fatigue in pregnant women (Kartilah & Februanti, 2020a; Kartilah & Februanti, 2020b). Progressive muscle relaxation (PMR) exercises during pregnancy are effective for temporarily increasing energy and fatigue (Ward-Ritacco et al., 2016). Relaxation improves the balance between the anterior and posterior hypothalamus, reduces sympathetic activity and catecholamine release, reduces muscle tension, reduces blood pressure and heart rate, and regulates breathing. Through PMR, individuals can relax all their muscles one by one so that they can reduce their anxiety and stress. Relaxation also stops the stress response, which was found to contribute significantly to pregnancy-related problems, such as fatigue (G. Mahmoudirad et al., 2017).

Tamansari Health Center has the highest number of pregnant women in the city of Tasikmalaya, namely 945 people in 2022, with K4 coverage of 78.41% with inflation of 0.95 percent which will encourage a decrease in the ability of the community to meet their health needs. Setiawargi Village is located in the working area of the Tamansari Public Health Center which is located in the south bordering the Tasikmalaya district. The closest distance is 3 km, and the farthest is 8 km from the kelurahan to the puskesmas, with a total of 21 posyandu spread over 18 RWs. A large working area and geographical conditions consisting of highlands with slippery rocky road conditions reduce community accessibility to health facilities so efforts are needed to increase accessibility and service coverage to support community independence, especially for pregnant women in maintaining and anticipating health problems.

METHOD

Community service activities are carried out in Setiawargi Village, Tamansari District, Tasikmalaya. The method of the activities carried out is training in small groups directly using demonstration techniques by servants and red demonstrations by pregnant women and cadres. The media used for the training were audio-visual presentations about the concept of changes in pregnancy, videos on how to do PMR, and reading materials in the form of leaflets and pocketbooks. The purpose of this activity is to increase the knowledge, attitudes, and skills of pregnant women and their families and cadres in reducing the level of fatigue due to pregnancy, through planned training activities, increasing public awareness, and participation in maintaining the health and welfare of pregnant women as an effort to reduce maternal morbidity.

RESULTS

Outcomes achieved in community service activities include:

Table 1. Average knowledge, skills and fatigue scores of pregnant women before and after training (n=15)

No.	Research Variables	Mean	St. Deviation	Min – Max Value
1.	Mother's Knowledge Score			
	Before Training	4,47	1,41	2 – 7
	After Training	7,67	0,9	6 – 9
2.	Pregnant Skill Score			
	Before Training	4,20	1,21	2 – 6
	After Training	8,73	1,16	6 – 10
3.	Fatigue Pregnant Score			

No.	Research Variables	Mean	St. Deviation	Min – Max Value
	Before Training	3,80	1,01	2 – 6
	After Training	2,07	0,79	1 – 4

Table 2. Average score of knowledge and skills of cadres before and after training (n=10)

No.	Research Variables	Mean	St. Deviation	Min – Max Value
1.	Cadre Knowledge Score			
	Before Training	5,1	1,37	2 – 7
	After Training	7,2	1,02	6 – 9
2.	Score of Cadre Skills			
	Before Training	3,8	0,92	2 – 5
	After Training	8,4	1,07	7 – 10

Table 3. Differences in average knowledge scores of pregnant women before and after training

Variables of Knowledge Scores	Mean	Mean Difference	St. Deviation	ρ
Before Training	4,47	3,2	1,26	0,0001
After Training	7,67			

$$t = -9.79 \quad n = 15$$

Table 4. Differences in average pregnant women's skill scores before and after training

Variable Skill Score	Mean	Mean Difference	St. Deviation	ρ
Before Training	4,2	4,5	1,72	0,0001
After Training	8,7			

$$t = -10,17. \quad n = 15$$

Table 5. Differences in average pregnant women's fatigue scores before and after training

Variabel Skor Fatigue	Mean	Mean Difference	St. Deviation	ρ
Before Training	3,8	1,7	1,22	0,0001
After Training	2,1			

$$t = 5,49. \quad n = 15$$

Table 6. The difference in the average knowledge score of Cadres before and after training

Variables of Knowledge Score	Mean	Mean Difference	St. Deviation	ρ
Before Training	5,1	2,1	1,28	0,001

Variables of Knowledge Score	Mean	Mean Difference	St. Deviation	ρ
After Training	7,2			

$$t = -5.16, n = 10$$

Table 7. Differences in the average skill scores of Cadres before and after training

Variables Skill Scores	Mean	Mean Difference	St. Deviation	ρ
Before Training	3,8	4,6	1,57	0,0001
After Training	8,4			

$$t = -9,22 \quad n = 10$$

DISCUSSION

Since the COVID-19 pandemic, many vulnerable groups have been unable to access health services (Pradana et al., 2021). One of these vulnerable groups is pregnant women. Pregnant women are expected to be able to adapt to their pregnancy. However, there are still many pregnant women who experience physical and psychological problems.

Pregnancy is important because the health and well-being of the mother directly affect the lives of others, namely the baby (Sadeghi et al., 2018). Pregnancy can cause physical and psychological changes including stress, fatigue, and anxiety (Amola, Pawara, and Kalra, 2019; O'Connor et al., 2018). Fatigue is a complaint that is often experienced by pregnant and postpartum women and can seriously affect the health and quality of life of mothers and babies (Liu et al., 2020; Amola, Pawara, and Kalra, 2019; Kim and Kim, 2018; Babazadeh et al., 2020). Recently, complementary medicine has been widely used in disease prevention and health promotion. Various kinds of interventions were developed to reduce fatigue in pregnant women. These interventions include birth ball exercises, and progressive muscle relaxation/PMR (Zhang et al., 2022; Rajeswari and Sanjeeva Reddy, 2020).

According to the theory of adaptation model by Sr. Callista L. Roy, individuals are biopsychosocial beings in constant interaction with a changing environment, and they need to cope with stimuli from both the internal and external environment. PMR intervention is a simple and cost-effective intervention, we can modify stimuli and bring a positive internal environment for pregnant women (Rajeswari and SanjeevaReddy, 2020). This technique is very easy to learn and serves as one of the best complementary therapies due to its ease of learning and cost savings and because it does not require special equipment, enabling easy implementation (Nasiri et al., 2018).

Relaxation techniques are non-pharmacological and side-effect-free therapy options that are currently available to relieve symptoms of various chronic diseases (Kesik, Ozdemir, and Mungan Ozturk, 2022). Physical exercise affects the dimensions of general physical health, anxiety, insomnia, social dysfunction, and depression in pregnant women (Sadeghi et al., 2018). Pregnant women who do PMR exercises will reduce anxiety and fatigue thereby reducing the negative effects on later labor because it keeps the fetus healthy while in the womb (Rajeswari and Sanjeeva Reddy, 2020). PMR can be applied to a variety of conditions. These conditions include reducing fatigue, improving sleep quality for COPD patients, and reducing pain intensity and sleep quality after SC surgery (Liu et al., 2020).

This community service activity is carried out by providing PMR training to pregnant women. This is done to make pregnant women and their families independent if they have complaints of fatigue as a precaution against the COVID-19 pandemic. Following the results of the analysis above, it is known that there is a significant difference in knowledge-attitude scores of pregnant women and cadres about fatigue and PMR between before and after training with an increase in the average score of pregnant women's knowledge after attending training as much as 3.2 points for pregnant women and pregnant women. 2.1 points on the cadre. This shows that efforts to

increase the knowledge and attitudes of pregnant women and cadres about fatigue and PMR are quite effective using training methods with various media.

In terms of skills, training has shown a significant difference between the skills of pregnant women and cadres before and after training. 4.5 points for pregnant women and 4.6 points for cadres. This also happened to cadres even though the points were smaller than pregnant women.

Furthermore, the fatigue score of pregnant women before and after training decreased the average score significantly by 1.7 points. This means that the training carried out has affected increasing the knowledge, attitudes, and skills of pregnant women and providing benefits in reducing fatigue levels.

CONCLUSIONS AND RECOMMENDATIONS

After conducting PMR training for pregnant women and their families and families, it can be concluded that:

- There was a significant increase in knowledge, attitudes, and skills of pregnant women and their families and cadres in reducing the level of fatigue due to pregnancy, through PMR training activities with an average increase of 4, 5 points for knowledge and attitudes of pregnant women, the average increase in knowledge and attitudes of cadres was 4.6 points, which was followed by a decrease in the average fatigue score of pregnant women by 1.7 points.
- There is an increase in public awareness and participation in maintaining the health and welfare of pregnant women in the form of cooperation and attention from families and cadres in reducing the anxiety of pregnant women.

To optimize efforts to improve the health of pregnant women during or after the pandemic, it is necessary to bring services closer to the community directly, by involving families and cadres, this is because families and cadres are community components that can assist and provide direct assistance to pregnant women.

Anxiety in pregnant women can increase the complexity of health problems, for this reason, it is necessary to pay attention to families, communities, and health workers continuously through the provision of clear and appropriate information.

Communication networks involving the community, health facilities, and target groups need to be improved through the establishment of a communication platform that provides open access for the community, and the target group discusses and exchanges experiences in solving health problems. Furthermore, this information can be used as study material for various coaching, mentoring and research activities.

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APPENDIX



Figure 1. PMR training



Figure 2. All participants in training activities