

Health Education and Exercise Activities to Improve Physical Fitness among the Community in Cisarua, Bogor

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ABSTRACT

Education is giving knowledge and skill to improve healthy including women health at the RW 004 Cisarua, Bogor. Many health problems still occur in women in there like hypertension, hypotention etc., Increase healthy for women can by positive lifestyle, education, and exercise. The objective of this community service is to address health obstacel in women health through several methods including: 1) providing education on nonpharmacological therapy to reduce health problem in women health like hypo and hypertension; 2) implementing health exercise for womens; 3) adopting positive lifestyle changes to decrease health problem, supervising, and reevaluating programs. Women are able to remain productive during old women, implement exercise, and stay healthier and more productive. The results of this intervention have proven effective in reducing health problem by non-pharmacological therapy, leading to healthier and more sustainable productivity for women health.

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INTRODUCTION

Health development is one of the strategic efforts to improve the quality of life of the community. One of the important indicators of health is physical fitness which is influenced by physical activity that is done regularly. Increasingly sedentary lifestyle changes, lack of physical activity, and low awareness of the importance of regular exercise can increase the risk of various non-communicable diseases, such as hypertension, diabetes mellitus, heart disease, obesity, and other metabolic disorders. Based on the recommendations of the World Health Organization (WHO), adults are recommended to do 150–300 minutes of moderate-intensity physical activity every week to maintain health and help prevent chronic diseases.

However, there are still many people who have not fulfilled these recommendations due to limited knowledge and low motivation to exercise regularly.

Health education is an important component of health promotion because it can increase knowledge and support changes in health behavior. Health education for middle-aged women to reduce all health complaints. RW 004 Cisarua Bogor has many middle-aged women. The results of interviews with middle-aged women and the chairmen of RT/RW, said that there have been efforts or interventions made to deal with this problem by participating in gymnastics groups but it has not been maximized. RW 004 Cisarua Bogor is a place with quite a lot of middle-aged women. There is no supervision of health checks from the local RT RW. That's why we do health checks, education and exercise in the form of gymnastics.

Formulation of partner problems; The types of priority problems for community groups are 1) efforts to meet exercise needs, 2) efforts to reduce health problems by health checks and conduct education and therapy according to their problems. Looking at the results of this situation analysis and discussions with partners, several major problems of partners were formulated, including; 1) Not optimal fulfillment of exercise and healthy lifestyle 2) the awareness and motivation to behave healthily is not optimal in conducting exercise interventions; health gymnastics.

The priority of the problem and the focus of service

Based on the results of the situation analysis and discussions with target partners, several problems were formulated;

1. Young adults are prone to health problems such as hypo-hypertension
2. Need to innovate the latest intervention results in reducing these health disorders
3. Need education, skills, and healthy lifestyle changes

The solution for all the situation analysis is

- 1) Counseling related to healthy lifestyle and nonpharmacological therapy
- 2) Increased understanding related to healthy lifestyle, skill exercise
- 3) Training on applying gymnastics and daily exercise
- 4) Supervise and re-evaluate program activities to address women's health disorders
- 5) Making a positive lifestyle in reducing health problems such as no longer consuming junk food and fast food
- 6) Follow-up and maintenance of a healthy lifestyle during middle age and prevention of hypertension, iron anemia and hypotension.

METHOD

in community service include through activities of equalizing the vision and mission by providing questionnaires, creating educational media, forming a team of program actors, conducting health screening interventions with health checks, conducting counseling, and exercises in gymnastics and other exercises, monitoring health implementation carried out according to targets.

The targets of the above solutions are:

1. Increased partner empowerment; Knowledge, understanding, and skills/practices/healthy living skills of adolescent girls about handling health problems
2. Applying fitness gymnastics exercises
3. Improve health, control hypertension, hypotension, anemia etc.

Participants: take part in education, fill out questionnaires, and take part in health checks, education, fitness exercises

RESULTS

Community Service Activities: Community Service "Education and Healthy Gymnastics Movement in an Effort to Improve Physical Fitness and Blood Pressure Check of the People of Cisarua, Bogor." was held in Cisarua, Bogor. The number of participants who took part in health education, Blood Pressure and Healthy Gymnastics examinations was more than 20 people (20 officially registered, and the rest joined without registering). Before the education is carried out, a pre-test is carried out to determine the level of knowledge about the purpose and benefits of gymnastics for body health.



Figure 1. Pre Test Activities



Figure 2-3. Educational Activities



Figure 4-5: Exercise activities



Figure 6. Post Test Activities

The response of participants to the Healthy Gymnastics Education and Movement activities was very good. Participants participated in the activity enthusiastically, paid attention to the material presented, and were active in discussion and question and answer sessions.

Table 1. Pre-Test and Post-Test Results

Rating	Category	Value Range	Number of Participants	Presentation
Pre-test	Less	< 60	1	5 %
	Medium	>60 - 80	10	50 %
	Good	>80 - 100	9	45 %
Post test	Less	<60	0	0 %
	Medium	>60-80	8	40 %
	Good	>80-100	12	60 %

Based on the results of the pre-test and post-test, it can be concluded that the Healthy Gymnastics Education and Movement activities are running effectively. This increased understanding is expected to encourage participants to be more concerned about their health by regularly doing healthy exercises. Based on the results of the comparison of pre-test and post-test scores of respondents, several conclusions can be drawn as follows:

There was a change in the distribution of participants' knowledge levels after being educated. At the time of the pre-test, as many as 9 participants (45%) were in the good category, 10 participants (50%) were in the medium category, and 1 participant (5%) was in the poor category. After being educated, the post-test results showed that the number of participants with good categories increased to 12 people (60%). Meanwhile, there were 8 (40%) participants in the medium category, and there were no participants in the less category.

Thus, there was an increase in the proportion of participants in the knowledge category from 45% to 60%, as well as a decrease in participants in the less than 5% category to 0%. These results show that after participating in educational activities, participants' knowledge achievements have changed for the better. The response of participants to educational activities was also very good. Participants participated in the activity enthusiastically, paid attention to the material presented, and were active in discussion and question and answer sessions.

Blood pressure checking activities are carried out before participants do gymnastics.

**Figure 7. Blood Pressure Measurement Activities**

Table 2. Characteristics of Participants who participate in health problems

Blood Pressure Outcome Range	Number of Participants	Presentation
100 / 60 - 120 / 80 mmHg	8	40 %
130/80 – 140 / 90 mmHg	9	45 %
> 140/90 – 180/90 mmHg	3	15 %
Total participants	20	100 %

Most participants (60%) had blood pressure above the normal range, with the largest group being in the pre-hypertension or degree 1 hypertension category at 45%. Only 40% of participants had blood pressure in optimal or normal condition.

- Normal Category (100/60 – 120/80 mmHg): 8 people (40%) had healthy blood pressure.
- Pre-Hypertension / Degree 1 (130/80 – 140/90 mmHg): 9 people (45%) were included in the alert group.
- Category Hypertension Degree 2 (>140/90 – 180/90 mmHg): 3 people (15%) have significant high blood pressure.

DISCUSSION

The provision of health counseling is the most important thing and needs to be repeated to refresh knowledge (Notoadmojo, 2010), including among mothers about women's health. The average knowledge score of participants was 88.00% who answered correctly. After going through the education session, their average knowledge value increased to 92.00% with a P Value of 0.00, meaning that there was a significant increase in the participants' knowledge. This change shows that health counseling has a significant positive impact in increasing participants' understanding and knowledge about reproductive health and about women's health and the handling of women's health disorders.

The respondents' achievements at the pre-test stage showed very good results, with an index score percentage of 88.00%. This indicates that respondents in general already have a very positive understanding or initial condition before being educated. The achievement of respondents at the post-test stage has increased and remains in the good category, with presentations reaching 92.00%. This shift was marked by an increase in the number of respondents who obtained a maximum score (score of 100) from 9 people to 12 people, as well as the loss of respondents who were at a low score (score of 60). There was an increase in the index value of 4.00% from the pre-test stage to the post-test stage. This proves that the interventions, treatments, or educational media that are applied effectively have a positive impact on optimizing achievements. These results are in line with a systematic review and meta-analysis that shows that health education interventions can improve knowledge, attitudes, and behaviors related to non-communicable diseases (Heine et al., 2021). Other studies on community-based interventions have also shown that group education can increase knowledge about cardiovascular disease and its risk factors (Hassen et al., 2022).

Healthy gymnastics is a form of physical activity that can be applied in community activities because it can be done in groups and is relatively easy to adjust to the ability of the participants. The WHO recommends that adults get 150–300 minutes of moderate-intensity aerobic activity per week, or 75–150 minutes of strenuous intensity activity, accompanied by muscle-strengthening exercise at least two days per week. Regular physical activity provides a variety of health benefits, including improved cardiorespiratory fitness, muscle health, and a reduced risk of cardiovascular disease and other non-communicable diseases. Evidence also shows the benefits of exercise on physical function in older age groups, including balance, strength, and mobility (Wu et al., 2024).

Health check activities such as blood pressure checks, important muscle parts (muscle stretching) are carried out before participants do gymnastics. The purpose of blood pressure screening activities for adults and the elderly is to detect early the risk of hypertension (high blood pressure) and hypotension (low blood pressure), anemia to prevent complications of critical diseases. This examination is very important because blood pressure disorders often do not show obvious clinical symptoms, so they are often dubbed as silent killers. A meta-analysis of 270 randomized controlled trials with 15,827 participants showed that various forms of exercise can lower resting blood pressure, including aerobic exercise, resistance training, combined training, and high-intensity interval training (Edwards et al., 2023). Systematic reviews and other meta-analyses have also shown the benefits of leisure physical activity on blood pressure in individuals with hypertension (Islam et al., 2023). Therefore, healthy gymnastics can be a form of physical activity that is introduced to the community as part of a healthy lifestyle.

The analysis of the results reported that the program of implementing education, providing exercise skills and healthy living examples had a positive impact on the well-being of mothers in Cisarua. In addition, the use of interactive counseling or education methods, as well as conveying in a fun method can strengthen the involvement of mothers and facilitate deeper understanding and skills among middle-aged women.

Lifestyle education for reproductive health; A healthy diet, exercise, and sleep in middle-aged women are very helpful in the process of handling health problems such as hypertension, hypotension, anemia, etc., because a healthy diet, regular exercise, and enough sleep are very helpful in eliminating discomfort during pre-menopause, menopause and menstruation for those who are still menstruating (Desmawati, 2021). Eating a lot of Fe, folate such as avocado, dates etc. can prevent anemia and hypotension, exercise can eliminate sluggishness and health problems and sleep that is enough to reduce headaches, strained eyes and so on. This is in accordance with the results of previous research on 1000 HPK where reproductive health needs to be continuously coached about their reproductive health, including problems during pre-menopause and menopause (Desmawati & Agustina, 2015).

Regarding fitness, including psychological, physical, spiritual areas, this is based on previous research by the service, namely the handling of women's discomfort both in the pre-menopause, menstrual period, and menopause such as; traditional by drinking natural rhizomes according to the results of studies that have been proven to reduce muscle soreness such as turmeric acid, ginger, turmeric, as well as massage or massage, the administration of compresses, distractions with positive imagery and muscle relaxation (Desmawati, 2019).

This activity integrates three main approaches, namely health education, blood pressure screening, and physical activity. This approach is relevant to the principle of health promotion because people not only get information, but also get the opportunity to conduct initial examinations and practice physical activity directly. Community-based interventions have shown potential in improving knowledge and supporting the prevention of cardiovascular disease, particularly when interventions are delivered through a group approach and direct contact with the community (Hassen et al., 2022).

Recommended actions to maintain health in the future are;

- a. Provide early education about salt consumption restrictions and stress management.
- b. Do periodic re-checkups because blood pressure can change at any time.
- c. Encourage participants in the highest category to consult a health facility.

CONCLUSION

Education, the implementation of healthy fitness gymnastics exercise skills, as well as maintaining other healthy lifestyles such as diet, rest patterns, mindless thinking that mothers have done, help them control their health in middle age such as controlling hypertension, anemia, not being tired or fragile and other joint muscle diseases. Increasing the knowledge of mothers after counseling and exercise gymnastics and the application of healthy living, reported that this community service was successful in implementing/implementing the results of the program in Cisarua Bogor.

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