

DESCRIPTION OF PHYSICAL ACTIVITY AMONG MIDWIFERY STUDENTS

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Abstract

Physical activity includes all movements, ranging from daily activities, moving from one place to another, work-related activities, and physical activities of low, moderate, and high intensity. Women in Indonesia tend to have a sedentary lifestyle or engage in physical activities at a low-intensity level. This study aims to describe the physical activity of midwifery students at Universitas 'Aisyiyah Yogyakarta. This research employs a quantitative method with a cross-sectional approach. The sample consists of 52 midwifery students selected through purposive sampling. Data collection was conducted using a questionnaire, and data analysis utilized univariate analysis. The results indicate that most midwifery students at Universitas 'Aisyiyah Yogyakarta engage in moderate physical activity, with 26 respondents (50%), while the fewest engage in high-intensity physical activity, with only 6 respondents (11.5%). We recommend that students enhance their physical activity levels, especially through exercise.

Keywords: Activity, Exercise, Physical.

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1. Introduction

Women of childbearing age are women aged 19-24, which includes college students. At reproductive age, women need to pay attention to their overall health, including reproductive health [1].

The World Health Organization (WHO) in 2018 stated that globally, women (84%) have a higher percentage of insufficient physical activity compared to men (78%). This higher percentage among women is due to a lack of physical activity during leisure time and the adoption of a sedentary lifestyle at home and work. Indonesian women

generally have a low level of physical activity [2]. Midwifery students, as future health role models in their communities, are expected to promote physical activity to society.

However, a study conducted by Utomo at Universitas Sebelas Maret in 2015 found that 15.24% of medical students had low physical activity levels, while 50.47% had moderate activity levels [3].

Currently, running is a popular physical activity that can be performed by individuals of all ages and in various locations. Teenagers today generally have low physical activity levels, which

affects their body weight. Therefore, physical activity is essential to maintain a healthy weight. Studies on body mass index in athletic and endurance sports show normal classifications [4].

Many studies suggest that physical activity has positive effects on the body. Regular physical activity has been proven to prevent and manage non-communicable diseases such as heart disease, stroke, diabetes, and some types of cancer. It also helps prevent hypertension, maintain a healthy weight, and improve mental health, quality of life, and overall well-being [5].

This research was conducted with the aim of determining the level of physical activity among midwifery students.

2. Method

This study is quantitative research with a cross-sectional approach aimed at describing the physical activity of midwifery students. The sample consists of 52 midwifery students selected through purposive sampling. Data collection was conducted using the International Physical Activity Questionnaire (IPAQ), which measures physical activity over the past seven days. We used the Indonesian version of the IPAQ [6].

The total score of physical activity is viewed in MET-minutes/week based on the sum of walking, moderate activity, and heavy activity in terms of duration (minutes) and frequency (days). The advantage of the IPAQ as a questionnaire instrument in this research is that it is time-efficient, effective, and can be conducted on a large scale and has been validated in various countries, especially in Indonesia. Moderate activity is defined as an activity that uses moderate physical effort, making breathing somewhat stronger than usual, and is done for at least 10 minutes. Heavy physical activity is defined as an activity that uses strong physical effort, causing breathing to be much faster than usual, and is done for at least 10 minutes.

Data processing included editing, coding, entry, cleaning, tabulating, and univariate analysis. We obtained ethical clearance under letter number 2419/KEP-UNISA/XI/2022.

3. Results and Discussion

This study collected primary data using a questionnaire regarding physical activity recall over the past seven days. Respondents included active midwifery students who engaged in physical activity, were willing to participate, and were present during data collection. Data from the 52 respondents were obtained from Class A and B.

Table 1. Characteristics of respondents based on age

Characteristic of age	f	%
20 years	5	9,6
21 years	33	63,5
22 years	14	26,9
Total	52	100

Based on the data in Table 1, the most common age of respondents in this study is 21 years with 33 respondents, accounting for (63.5%) and the least common

Table 2. Characteristics of respondents based on menarche

Characteristic of menarcha age	Frequency	%
13 years	11	21,2
14 years	15	28,8
15 years	5	9,6
16 years	1	1,9
Total	52	100

Based on Table 2, the most common menarche age among respondents is 12 years with 16 respondents, accounting for (30.8%) and the least common ages are 10 years and 16 years, each with a total of 1 respondent and a percentage of (1.9%).

Table 3. Physical Activity Midwifery Student

Physical Activity	Frequency	%
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<i>Low</i>	20	38,5
<i>Moderate</i>	26	50,0
<i>High</i>	6	11,5
Total	52	100

As shown in Table 3, most midwifery students at Universitas 'Aisyiyah Yogyakarta engaged in moderate physical activity (50%), followed by low-intensity activity (38.5%), and the least in high-intensity activity (11.5%).

According to the Ministry of Health of the Republic of Indonesia, physical activity is any body movement that increases energy expenditure and calorie burning. Some examples of daily physical activities include walking, gardening, sweeping, washing, mopping, going up and down stairs, and more. Physical activity provides benefits to the body, including controlling body weight, blood pressure, cholesterol levels, improving endurance and the immune system, enhancing joint flexibility and muscle strength, managing stress, and reducing anxiety [7].

Based on the respondent age characteristic data, the majority of respondents in this study were 21 years old, with 33 respondents making up 63.5%, while the least was 20 years old, with 5 respondents making up 9.6%. In this study, respondents ranged in age from 20 to 22 years, with the age group of 15 to 25 years being the most common to experience dysmenorrhea according to the research [8]. The age of female students is the peak age for primary dysmenorrhea, which occurs in late adolescence or early 20s according to the opinion [9].

The incidence of dysmenorrhea increases due to low or no activity, which causes reduced blood and oxygen flow to the uterus, a decrease in endorphin production in the brain, and an increase in stress reduction. Moderate physical activity can lower prostaglandin levels and release endorphins that can have analgesic effects as well as reduce pain intensity during dysmenorrhea [10].

According to Table 3, the majority of respondents engage in moderate-intensity physical activity (50%). Most of them perform activities such as cleaning their dorms/homes, carrying objects weighing less than 20 kg while studying, and engaging in transport-related activities that increase breathing rate and heart rate, which defines moderate-intensity activity.

Physical activity involves bodily movements produced by skeletal muscles requiring energy expenditure. It includes light, moderate, or heavy effort that can improve health when performed regularly. The energy expenditure varies depending on the duration, intensity, and muscle engagement. Lack of physical activity is a risk factor for various chronic diseases, leading to global mortality [11,12].

According to the Indonesian Ministry of Health, physical activity involves any body movement that increases energy expenditure and calorie burning. Examples include walking, gardening, sweeping, washing, mopping, and climbing stairs. Physical activity provides numerous benefits, such as controlling weight, blood pressure, and cholesterol levels, boosting endurance and immunity, improving joint flexibility and muscle strength, managing stress, and reducing anxiety.

The activity of the Health Organization (WHO) is defined as body movement produced by skeletal muscles that requires energy, examples include working, playing, doing housework, walking from one place to another, and engaging in hobbies (such as cycling, swimming, and jogging). The Centers for Disease Control (CDC) and WHO recommend that adults aged 18 - 64 years should engage in at least 150 - 300 minutes of moderate-intensity physical activity or at least 75 - 150 minutes of high-intensity physical activity, or an equivalent combination of moderate and vigorous activity throughout the week. The benefits of physical activity include improved physical fitness, increased

bone strength, reduced risk of hypertension, and more [13].

Silalahi found that moderate-intensity physical activity benefits overall health, particularly reproductive health. Light activity has minimal effects on metabolism, whereas excessive or intense activity may reduce estrogen levels. Regular moderate-intensity activity, such as weekly exercise, can enhance metabolism. Insufficient physical activity reduces systemic oxygen circulation, increasing pain perception, including dysmenorrhea [14]. Human physical activity is closely related to quality of life, health, and well-being [15].

Fitness is essential for daily activities without excessive fatigue while maintaining post-activity performance. Regular, structured physical activity improves physical fitness and health [16]. Fitness results from systemic bodily functions that enhance life quality in physical activities.

Physical fitness is something that is very important for humans, especially for someone who has many activities every day. Physical fitness is the body's ability to perform activities without experiencing significant fatigue [17].

How important physical fitness is in adolescence, the rapid growth in adolescence, and accompanied by data on the prevalence of obesity. If adolescence is not filled with good physical activity, physical fitness will decrease and the tendency for a healthy lifestyle to lead to obesity will be high [18].

Teenagers today often prefer sedentary activities, influenced by social media such as Instagram and TikTok, leading to prolonged screen time and online gaming. Consequently, many suffer from poor fitness or overweight issues. They need motivation to engage in physical activities, such as running. Running events like 5 km, 10 km, and 15 km races attract young people to exercise. Some running spots feature photographers capturing moments, further encouraging participation. A

responsible approach to sports maximizes health benefits [19].

Physical activity or exercise can cause the release of chemicals in the human body, such as endorphins and serotonin that can enhance mood. Regular exercise can reduce stress and symptoms of mental health conditions such as depression and anxiety, and it can also aid in recovery from mental health disorders. Physical activity or exercise can help pump blood to the brain, enabling clearer thinking. In addition, exercising can increase the size of the hippocampus, which is the part of the brain responsible for memory [20].

The intensity of physical activity and exercise is directly proportional to the level of physical fitness. Furthermore, engaging in physical activities or exercising affects physical capacity in maximizing the oxygen processed in the body [21].

4. Conclusion

The study concluded that most midwifery students at Universitas 'Aisyiyah Yogyakarta engage in moderate-intensity physical activity (50%), with the least participating in high-intensity activity (11.5%). We encourage students to enhance their physical fitness by increasing their physical activity, particularly through exercise. We recommend that students enhance their physical activity, especially through exercise.

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