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# Analysis of Physical Fitness and Health Status of the Teacher Professional Edaucation Program (PPG) Universitas Negeri Jakarta

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## ABSTRACT

**Background**: Physical fitness and health are crucial factors contributing to teacher effectiveness. In fact, the intensity of academic activities and high course load often contribute to a decline in the physical fitness of PPG participants. **Purpose**: Conducting an analysis of the level of physical fitness and health status of participants in the teacher professional education program (PPG) Universitas Negeri Jakarta. **Methods**: The research method used in this study is a qualitative method where the author tries to collect data directly from key subjects. The population was all UNJ PPG participants for the 2024/2025 academic year. Using a total sampling method, 100 respondents were obtained, consisting of men and women aged 23–35 years. **Results**: The average $VO_2$ Max of participants was approximately 38.5 ml/kg/min, which is considered moderate. Most participants had an ideal body mass index (65%). **Conclusion**: and many participants had a balanced nutritional status (65%). Correlational results showed no significant relationship between physical fitness levels and health status of participants. **Implications and Recommendation**: a sustainable physical fitness development program is needed for PPG participants, with regular sports activities and nutrition education

**Keywords:** Physical Fitness; Body Mass Index; Nutritional Status; PPG UNJ

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## INTRODUCTION

The Teacher Professional Education Program (PPG) aims to produce professional, competent, and character-driven educators. Physical fitness and health are crucial factors contributing to educator effectiveness (Cadenas-Sanchez et al., 2020). Good physical fitness can improve physical endurance, concentration, and the quality of learning provided to students. However, the intensity of academic activities and the high course load often contribute to a decline in the physical fitness of PPG participants. Therefore, this study focuses on analyzing the physical fitness profiles and health status of PPG participants at Jakarta State University as a basis for formulating recommendations for improving their fitness and health.

Fitness and health are also essential for professions that require high levels of physical activity, such as aerobics instructors (Moreno-Díaz et al., 2024). An aerobics instructor may lead 2–3 training sessions in various locations, more than four times per

week. Understanding their physical condition and health status is crucial to maintain performance and set a positive example for participants. Comprehensive fitness and health assessments have never been conducted on PPG participants at Jakarta State University, making this study a significant first step.

Exercise is a basic human need across age, gender, and social status. In large cities, sports activities such as jogging, cycling, cardiovascular exercise, and aerobics have become part of people's lifestyles (Kumari et al., 2024). These activities not only aim to improve fitness but also serve as a means of recreation and social interaction. Improved physical fitness contributes to increased work productivity and reduced fatigue and absenteeism, both in educational settings (Ginanjar, Rihatno, et al., 2023; Ginanjar, Widyawan, et al., 2023). Aerobic exercise is a popular form of exercise because it can be practiced on a mass scale and flexibly by various groups. Its benefits include weight loss, body shaping, improved physical fitness, and maintaining heart and lung health (Cupeiro et al., 2020). This exercise is also often a routine activity in various institutions, especially on Fridays, to raise awareness of healthy living. A person's physical fitness level can be measured through various indicators such as heart rate, talk tests, or self-perception of fatigue during aerobic activity (Lourenço et al., 2025). A person with a good level of fitness will be able to carry out daily activities without excessive fatigue and will have sufficient energy reserves for additional activities (Blagus et al., 2023). Physical fitness is defined as a physical condition related to health, including cardiorespiratory fitness, muscle strength and flexibility, and body composition (Carriedo et al., 2020; Ginanjar et al., 2025). Thus, physical fitness is not only related to physical performance but also reflects the body's ability to adapt to the demands of daily activities.

## METHOD

The research method used in this study is a qualitative method where the author tries to collect data directly from key subjects (Creswell, 2018) with a more descriptive depiction of the results so that the collected data is in the form of words or images that better describe their meaning. This study intends to understand the phenomenon of what is experienced by the research subjects holistically, and by means of descriptions in the form of words and language, in a specific natural context and by utilizing various scientific methods (Creswell, 2018).

### *Participants*

The population was all UNJ PPG participants for the 2024/2025 academic year. Using a total sampling method, 100 respondents were obtained, consisting of men and women aged 23–35 years.

### *Instrument*

The instruments used in this study consisted of:

1. Physical Fitness Test using the Bleep Test to measure cardiovascular and pulmonary endurance capacity. The norms used are as follows in the table 1.

**Table 1.** Bleep Test Norms

| Category | Male (ml/kg/min) | Female (ml/kg/min) | General Interpretation |
|---|---|---|---|
| Very Good | >52 | >45 | Excellent fitness, high endurance |
| Good | 43-52 | 38-45 | Optimal fitness, supports intensive physical activity |

| | | | |
|---|---|---|---|
| Average | 34-42 | 31-37 | Sufficient fitness for daily and academic activities |
| Poor | 25-33 | 21-30 | Needs increased physical activity and a healthy lifestyle |
| Very Poor | <25 | <21 | Increased health risks, low fitness |

2. Health Status measured by the formula: Body Mass Index (BMI) = $\frac{\text{Weight (kg)}}{\text{Height (m2)}}$

3. Additional Data: collected through a short questionnaire about diet, exercise activity, and lifestyle. The norms used are as follows in the table 2.

**Table 2.** Nutritional Norm

| Weight | Description |
|---|---|
| ≤18,49 kg/m² | *Underweight* |
| 18,5-24,9 kg/m² | Ideal |
| >25-27 kg/m² | *Overweight* |
| >27 kg/m² | Obesity |

***Data Analysis***

Data were analyzed descriptively using percentages, average values, and categorization based on national physical fitness norms and WHO BMI standards (2020).

## RESULTS AND DISCUSSION

### Results

Based on the results of the research that has been carried out, the following data distribution can be obtained in the figure below.

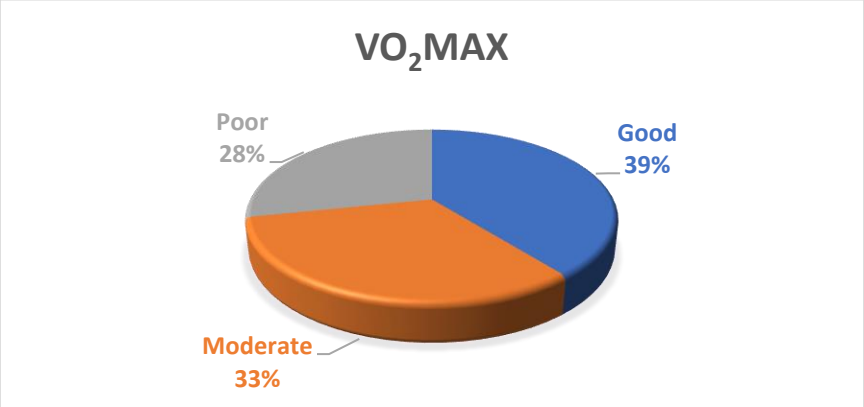


**Figure 1.** Result of $VO_2$Max
**Source**: author/personal data

Based on Figure 1, the average $VO_2$ Max for participants was around 38.5 ml/kg/minute, which is considered moderate. This means that most participants have sufficient physical endurance for daily activities, but not yet optimal for high-intensity work.

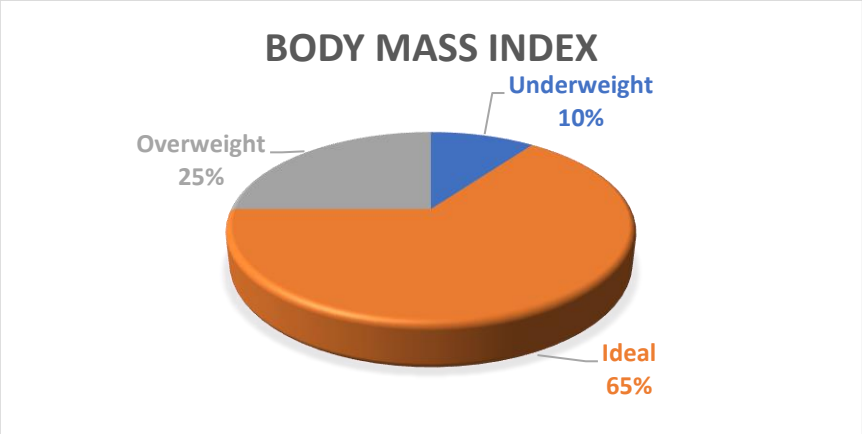


**Figure 2.** Result Body Mass Indexs
**Source:** author/personal data

Based on Figure 2, most participants had an ideal body mass index (65%), although there were still overweight (25%) and underweight (10%). This condition can affect overall fitness and physical performance.

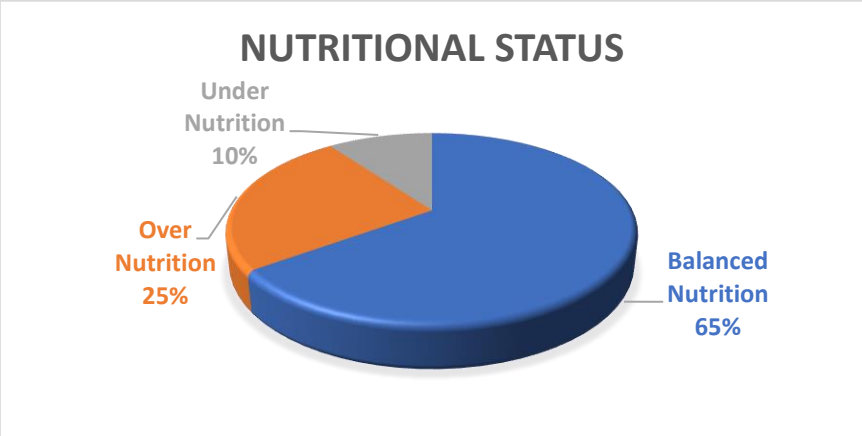


**Figure 3.** Result of Nutritional Status
**Source:** author/personal data

Based on Figure 3, many participants had balanced nutrition status (65%), although there were still overnutrition status (25%) and undernutrition status (10%). However, this will impact physical fitness and less than optimal physical performance.

Descriptive statistics show that the average $VO_2$max value is in the range of around 38–40 ml/kg/min, while the average BMI is in the range of 23–25 kg/m². The correlation between $VO_2$max and BMI = 0.22, which indicates a very weak positive relationship - higher BMI is not always followed by an increase in $VO_2$max (generally the relationship between fitness and BMI tends to be negative, but variations in physical activity and body composition can influence this result).

## Findings

Based on the results of the physical fitness test using the Bleep Test, 35% of participants had a good fitness level, 40% were in the moderate category, and 25% were in the poor category. This indicates that most participants had moderate physical fitness, but there was still a group of participants who needed to improve their physical endurance capacity.

Body Mass Index (BMI) measurements showed that most participants were in the normal category, but several participants were overweight and mildly obese. These conditions can impact physical performance and overall fitness. Analysis revealed a weak positive correlation (r = 0.22) between $VO_2$max and BMI. This means that although there is a trend toward a relationship between physical fitness and nutritional status, other factors such as diet, physical activity intensity, and time management also play a significant role in participants' fitness (Silva et al., 2023). Factors contributing to suboptimal physical fitness include high academic workloads (Zhou et al., 2024), lack of regular exercise time (Noopiam et al., 2025), and low awareness of the importance of physical fitness (Song et al., 2021) in supporting the professional competence of prospective teachers.

Physical fitness intervention programs need to be systematically designed for PPG participants, through routine activities such as fitness exercises, group jogging, or recreational sports at least three times per week (Ginanjar et al., 2024). Nutrition and healthy lifestyle education is needed, including an understanding of the importance of balanced energy intake, hydration, and sleep patterns in supporting participants' fitness and mental health (Haegele & Zhu, 2021; Ingyu et al., 2020). Universities are expected to provide adequate sports facilities and flexible schedules so participants can manage their time between academic and physical activities. Regular monitoring of PPG participants' physical fitness and nutritional status is needed as part of the academic health evaluation and the development of a healthy, fit, and productive teacher profile. For further research, it is recommended to conduct longitudinal studies involving additional variables such as stress levels, sleep patterns, and motivation (Song et al., 2021; Vlooswijk et al., 2022) to obtain a more comprehensive picture of the factors that influence the fitness of prospective teachers.

## CONCLUSION

Based on the results of the research conducted by the researcher, it can be concluded that most PPG UNJ participants have a moderate level of physical fitness (40%), while 35% are classified as good and 25% are poor. Meanwhile, health status based on BMI shows that most participants are in the normal category (65%), but there is still a tendency to be overweight in some participants. Of course, this also affects fitness conditions, namely low physical activity patterns, unbalanced nutritional intake, and a high academic load. Based on this view, a sustainable physical fitness development program is needed for PPG participants, with regular sports activities and nutrition education.

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## CONFLICT OF INTEREST

The author declares that there is no conflict whatsoever related to the research, writing and publication of this article.

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