



Physical Fitness Survey of Members of the Communication and Electronics Service of the Indonesian Navy Headquarters

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Abstract

This survey aims to measure the level of physical fitness of members of the Communication and Electronics Service at the Navy Headquarters. Data was obtained through a series of physical fitness tests which included the 12-minute Run Test, Pull up, Sit up, Push up and Shuttle run. The survey results are expected to provide an accurate picture of the physical condition of personnel and become the basis for developing a more effective physical development program. This research is a descriptive study with survey and measurement test methods. The subjects of this research data are members of the Communication and Electronics Service of the Navy Headquarters, age category 29 to 40 years as many as 30 respondents. Data analysis techniques using fiber percentages calculate the maximum and minimum values and standard deviations. The results showed that most of the physical fitness of members of the Communication and Electronics Service of the Navy Headquarters was good. In detail the results obtained; 14 people (46.7%) in the Good category, 13 people (43.3%) in the Sufficient category and 3 people (3.0%) in the Less category, while for the Very Good and Less category there is no (0%).

Keywords: Physical Fitness, Eletronika Headquarters TNI, Navy

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Author's Contribution: a - Study Design; b - Data Collection; c - Statistical Analysis; d - Manuscript Preparation; e - Funds Collection



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A. Introduction

The Indonesian Navy (TNI-AL) is one of the branches of the army and is part of the Indonesian National Army (TNI) which is responsible for the defense operations of the Republic of Indonesia at sea. The Navy is structured based on Presidential Regulation Number 66 of 2019 concerning the Organizational Structure of the Indonesian National Army. The Indonesian Navy Headquarters (Mabesal) consists of Leadership Elements, Leadership Assistance Elements, Leadership Service Elements, Central Executive Bodies (Balakpus), and Main and Development Commands (Kotama BIN) (Presidential Regulation No. 66 of 2019).

The Office of Communication and Electronics of the Navy (Diskomlekal) is one of the Central Executive Bodies in charge of organizing the development of communication and electronic warfare of the Navy, including communication support, communication development, electronic warfare, and communication operations. The Navy Headquarters Diskomlek has an important role in ensuring smooth communication and electronics within the Navy to support the readiness and operational capabilities of the Navy. As members of the military, personnel of the Navy Headquarters Diskomlek are required to always be in

good shape both physically and mentally in order to carry out their duties optimally (Indonesia, 2004).

Physical fitness consists of several components, including cardiovascular endurance, muscle strength, muscle endurance, flexibility, and body composition. Good physical fitness is essential for every individual, including military members, to be able to carry out their duties and responsibilities properly. Physical fitness is an effort to assess the level of individual physical strength in carrying out daily activities (Lengkana, 2021). Physical fitness is needed by humans, because this factor greatly supports the results of the activities carried out. To maintain physical fitness, everyone is required to be able to manage a regular lifestyle, exercise, or avoid foods that are not suitable for their body. In this way, a person can have an optimal level of physical fitness and maximize his mind and energy for activities (Supariyadi et al., 2022).

Good physical ability and fitness are very important for members of the Indonesian Navy (TNI AL) in carrying out their duties and responsibilities. Members of the Indonesian Navy are faced with a variety of tough physical challenges, such as conducting intensive physical training, conducting military operations, and facing

extreme environmental conditions such as hot, cold weather, and choppy seas. Therefore, every Navy soldier is required to have a good level of physical fitness in order to carry out their duties optimally. In addition, to determine the ideal body weight, it is necessary to assess the Body Mass Index (BMI). BMI has several categories, such as thin, normal, overweight, and obese, and is important for assessing a person's health risks based on their weight. BMI is calculated by dividing body weight by the square of height (meters) to assess a person's nutritional status (Leokuna & Malinti, 2020; Abineno & Malinti, 2022).

In maintaining and improving physical fitness, the Navy implements a routine and structured physical training program for all its soldiers. The physical training program is carried out on a scheduled basis and is part of the mandatory activities of Navy soldiers. However, so far there is no comprehensive data on the overall physical fitness level of Navy soldiers. Therefore, it is necessary to conduct a study to determine the level of physical fitness of members of the Navy, especially for members of the Communication and Electronics Service (Diskomlek) of the Navy Headquarters. The results of this study are expected to provide useful information for the Navy

Headquarters Diskomlek in planning and evaluating physical exercise programs to maintain and improve the physical fitness of its soldiers. Diskomlek Mabes TNI AL is one of the command units that has duties and responsibilities in the field of communication and electronics. Members of the Navy Headquarters Diskomlek must have an optimal level of physical fitness to be able to carry out their duties properly. Based on the description above, it is necessary to conduct a survey to determine the level of physical fitness of members of the Navy Headquarters Diskomlek. The results of this survey are expected to be a reference for unit leaders to conduct coaching and improve the physical fitness of personnel.

B. Methods

This study uses a descriptive quantitative approach with a **cross-sectional** research design, which aims to describe the level of physical fitness of members of the Office of Communication and Electronics (Diskomlek) of the Navy Headquarters (TNI AL). The method used was a survey, with a physical fitness test instrument that included a 12-minute run, push-ups, sit-ups, pull-ups, shuttle runs, and height and weight measurements. The data obtained from the test were converted into

values in accordance with the applicable assessment table, then analyzed statistically to provide an overview of the level of physical fitness of members.

The population in this study consisted of 163 members of the Navy Headquarters Diskomlek, with a sample taken by **Simple Random Sampling** of 30 people. Data collection techniques were carried out using instruments that have been determined by the Navy, such as the Physical Fitness test which consists of several physical tests. Data analysis was carried out descriptively quantitatively to determine the level of physical fitness of members as well as the relationship between physical fitness and their performance.

C. Result and Discussion

Result

1. Physical Fitness Level of Members of Diskomlek MABES TNI AL

The results of research on the physical fitness of Navy Headquarters Diskomlek members obtained through the physical fitness test showed a **minimum** score of **31**, a **maximum** score of **76**, an **average of 55.68**, and a **standard deviation of 12.08**. Based on this data, it can be concluded that the physical fitness level of the Navy Headquarters Diskomlek members is mostly in the **Good** category with a percentage of 46.7%, followed by the **Fair** category as much as 43.3%. Meanwhile, only 3.0% of members are classified in the **Lack** category. There are no members who are in the **Very Good** or **Very Poor** categories.

Table 1. Statistics of Physical Fitness Test Results of Navy Headquarters Diskomlek Members

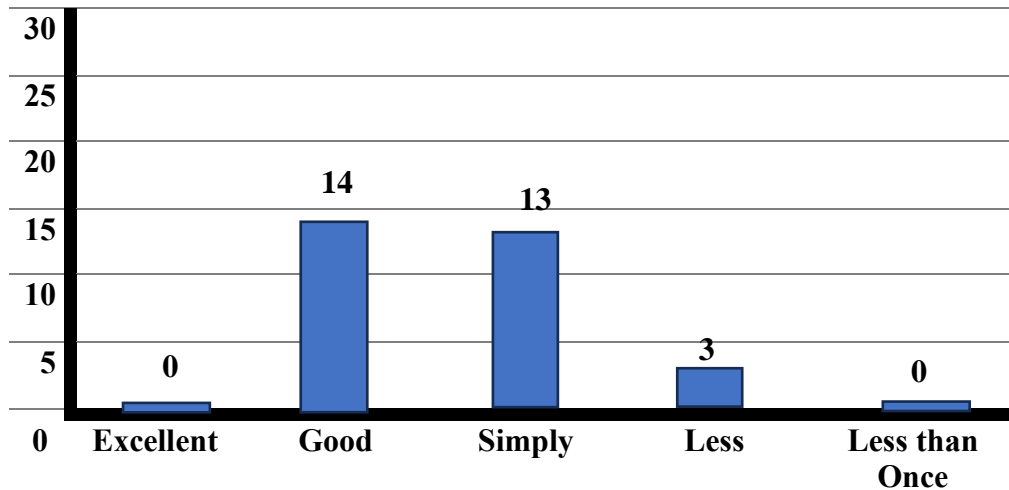
Statistics	
<i>N</i>	30
<i>Mean</i>	55.68
<i>Median</i>	57.25
<i>Mode</i>	43
<i>Std Deviation</i>	12.087
<i>Minimum</i>	31
<i>Maximum</i>	76

Based on the table above, it is known that the results of the physical fitness test of

the Navy Headquarters Diskomlek members are in the excellent category as many as 0 people (0.0%), 14 people

(46.7%) are good, 13 people (43.3%) are in the moderate category, 3 people (3.0%) are in the less category, and 0 people (0.0%) are in the very poor category. So it can be concluded that the results of the physical

fitness test for members of the Navy Headquarters Diskomlek are in the good category. If displayed in the form of a diagram it can be seen in the figure in the form of a diagram can be seen as follows:



2. Body Mass Index

Research data on body mass index of Navy Diskomlekal and Retired Navy members by measuring body weight and

height. Then the data is presented statistically, the full details can be seen in the following table:

Table 2. Body Mass Index Statistics of Members of the Navy Headquarters Diskomlek

Statistics	
<i>N</i>	30
<i>Mean</i>	23.66
<i>Median</i>	23.50
<i>Mode</i>	23.30
<i>Std Deviation</i>	1.589
<i>Minimum</i>	20.50
<i>Maximum</i>	27.70

Based on the table above, it is known that the body mass index of the Navy

Headquarters Diskomlek members is in the category of severe thinness as many as 0

people (0%), light thinness as many as (0%), in the Normal category as many as 26 people (86.7%), in the category of light fat as many as 3 people (10%), and in the category of heavy fat (obesity) as many as 1 person (3.3%). So it can be concluded that

the body mass index of members of the Navy Headquarters Diskomlek is generally normal. If displayed in the form of a diagram it can be seen in the figure in the form of a diagram can be seen as follows:

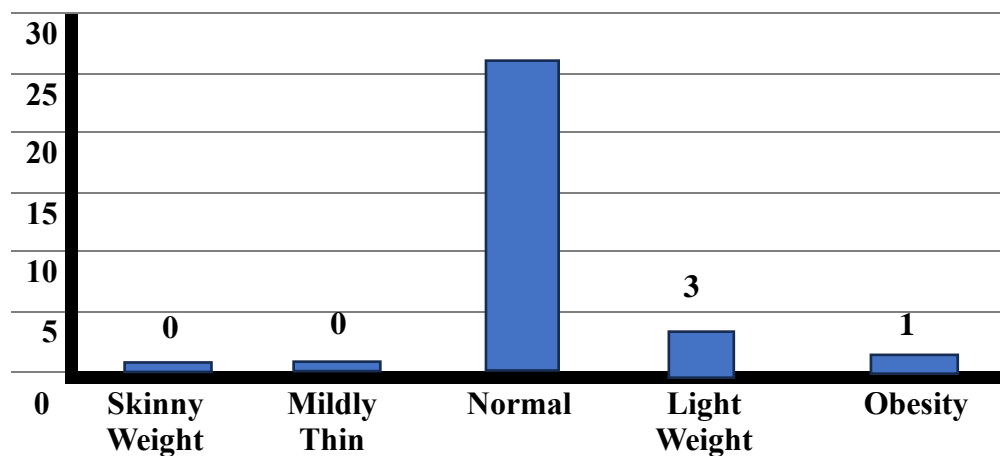


Figure 4.2 Body Mass Index Diagram of Navy Headquarters Diskomlek Members.

Based on research data, the body mass index (BMI) of Navy Headquarters Diskomlek members shows that most members are in the **Normal** category as many as 26 people (86.7%). A total of 3 people (10%) are in the **Light Fat** category, and only 1 person (3.3%) is in the **Heavy Fat (Obesity)** category. There are no members who are in the **Severe Skinny** or **Mild Skinny** categories. Thus, it can be concluded that the BMI of the majority of Navy Headquarters Diskomlek members is at a normal level, which reflects good nutritional status. This finding shows that most members have a physical condition that is in accordance with physical fitness

standards, although there are a small number of members who need attention in managing body weight and physical fitness. This BMI frequency distribution data is also visualized in Diagram 4.2 (Sugiyono, 2019).

D. Conclusio

Overall, the results of this study provide a sufficient picture of the level of physical fitness of members of the Navy Headquarters Diskomlek. Most members are in the good category, although there are still some members who are in the sufficient

and deficient categories. This shows that there is room for improvement in the physical coaching program that has been running. With proper evaluation and improvement, it is hoped that the level of physical fitness of members can continue to be improved so that all members of the Navy Headquarters Diskomlek can achieve an optimal level of fitness.

The findings in this study can be taken into consideration for the Head of the Navy Headquarters Diskomlek in evaluating the effectiveness of the physical training program that has been implemented. It is important to assess whether the program has succeeded in improving members' physical fitness. For members who are in the sufficient and deficient categories, additional motivation, such as small competitions or incentive programs, should be provided to encourage them to improve their physical performance. In addition, regular monitoring of members' physical fitness levels is needed to see their progress and intervene if necessary. This study also reaffirms the importance of physical fitness for a soldier, as good fitness will support optimal performance in carrying out duties. The role of officers as superiors is very important in motivating their subordinates to always be active in physical activities,

maintain a healthy diet and drinking patterns, and ensure good sleep patterns.

Based on the results of this study, there are several suggestions that can be conveyed. First, most members of the Navy Headquarters Diskomlek are in the good and sufficient categories in balance, so it is necessary to increase physical activity through the addition of sports activities outside the routine schedule. This activity is expected to be carried out regularly, programmed, and sustainable to improve the physical fitness of members. Secondly, the Head of Diskomlek, in this case the officers, should more actively control and monitor the level of physical fitness of their members and provide motivation so that they are not lazy to do physical activity or exercise. Third, for future research, it is recommended that the population coverage be expanded to include all members of the Navy Headquarters Diskomlek, so that the identified physical fitness level data is more diverse and representative.

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F. Conflict of Interest

This research is declared to have no conflict of interest.

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