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Analysis of Vo2 Max Levels in Narcotics Correctional Families at Class II B Argamakmur Prison North Bengkulu

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Abstract

This study aims to determine the Vo2 Max level of Narcotics Correctional Families at Class II B Argamakmur, North Bengkulu. This study uses a qualitative research method, with a survey design that aims to find out the general description of the characteristics of respondents which totaled 40 men and measure ments using the Multi level Test Fitness test (MFT). The results showed that the age of the respondents was from 18 to 33 years with the youngest being 18 years and the oldest being 33 years. Work respondent previously most are farmers or gardeners with percentage which is very high, and only a few of the in mates are self employed. Based on the results of the tests conducted, it can be stated that out of 40 respondents, it is known that 4 in mates or 10% have a category currently. As well as 36 inmates or 90% have VO2 max test results categorized Less, based on these criteria, Class II B Argamakmur Correctional Families have a level Vo2 max have category Not enough.



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INTRODUCTION

Classification in mates based on Law Number 12 of 1995 concerning penitentiary that a convict must be classified based on the level of crime, and other needs, including classification inmates who use drugs. Class II B Argamakmur prison has a total of 340 inmates, including 74 convicts or drug inmates. According to the Narcotics Law article 1, paragraph 1, narcotics are artificial substances that come from plants that give the effect of hallucinations, decreased consciousness and cause addiction. Drugs have an impact on physical fitness and health for its users, one of the impacts is dehydration, hallucinations, decreased consciousness, death and impaired quality of life. The dangers of drugs have a negative impact on the condition of the body related to physical fitness. If you have consumed drugs, it will affect concentration at work and the quality of body health for drug users. Health is a condition that is not only free from disease but also covers all aspects of human life which include physical, emotional, social and spiritual aspects. According to the World Health Organization (WHO) Health itself can be interpreted as a state of perfect physical,

Physical activity is also referred to as a factor that affects the level of fitness and physical health of a person. Physical Education is a subject that equips students with knowledge about physical movement in sports and the health factors that influence it (Prabowo, 2022). In this case, it is related to physical fitness. Physical fitness in terms of physiology (physiology) can be interpreted as the body's ability to make adjustments (adaptation) to the physical burden given to it (work) without experiencing significant fatigue. A decrease in physical activity can result in a decrease in the activity of the organs that play a role in

physical fitness. One of the best ways to achieve physical fitness is to do regular exercise with sufficient frequency. Physical fitness is the physical aspect of overall fitness (total fitness), which gives a person the ability to lead a productive life and be able to adapt to any physical load (physical stress) is appropriate (Apri, 2012).

Physical fitness is something that is influenced by physical activity and exercise that a person does. More and more activity and the exercise that a person does, the better the level of physical fitness (Nopiyanto et al., 2022). This is because doing physical activity and exercise will increase the body's ability to consume oxygen to the fullest. If the body has been able to increase oxygen consumption to the maximum, it will automatically affect the level of physical fitness. Physical fitness can also develop self-management skills in efforts to develop and maintain physical fitness and a healthy lifestyle through activity, physical education and sports, and improve basic movement abilities and skills. Physical fitness is an aspect of overall fitness (total fitness) that a person is in a fresh state (fit), if he has sufficient strength, ability, creative power and endurance to do work efficiently. Based on research conducted by Haskell, WL (2016) showed a high correlation between VO₂ max and leisure time physical activity observed from 122 men in Helsinki. Other research states that someone who has a high level of physical fitness can carry out physical activities such as studying, working or exercising well without feeling too tired.

In this study, the authors conducted research on analysis VO₂ max at the Institute Correctional Class II B Argamakmur. Correctional Institutions, which are often abbreviated as Correctional Institutions, are places that have the duty to carry out the care,

guidance, service and development of convicts who have been determined to be suspects by the court. Meanwhile, according to the main dictionary of scientific terms, convicts are people of punishment, people of the cradle. Furthermore, based on the legal dictionary, convicts are defined as people who are serving a sentence in a Correctional Institution.

Narcotics are substances/drugs that can cause anesthesia, because the substances that work affect the composition nerve central. Narkoba stands for narcotics, psychotropics and other addictive substances. Drugs are drugs to calm the nerves, relieve pain, and lull (can be intoxicating, so they are prohibited from being sold to the public). Drugs have many kinds, shapes, colors, and effects on the body. However, of the many types and forms, drugs have many similarities, including the very high nature of addiction (addiction), tolerance (adjustment) and habitual power (habits). These three characteristics cause drug users to be unable to escape from their "grip" (Subagyo, 2012).

VO₂ max is the amount of oxygen used by muscles during a certain interval (usually 1 minute) for cell metabolism and energy production (Giri Wiaro, 2013). Meanwhile, according to Suharjana (2013), VO₂ max is the maximum uptake of oxygen, usually expressed as a volume every minute and often called oxygen consumption which is carried out continuously every minute. VO₂ max is the product of maximum cardiac output and maximum O₂ extraction by tissues, and both increase with practice. The average VO₂ max is 38 mL/kg/min in active healthy men and about 29 mL/kg/min in active women, this figure is lower in inactive people (Ganong, 2018). VO₂ max is the maximum rate a person can take in and consume oxygen from the atmosphere for aerobic respiration and

therefore represents aerobic energy expenditure (Gordon, 2009).

Maximum aerobic capacity expressed as VO₂ max aerobic capacity essentially describes the amount of motor power (motor power) from the aerobic process of an athlete. A high VO₂ max allows you to do more strenuous and longer repetitions of movements than when VO₂ max low. The activities carried out are the same, so a higher VO₂ max will result in lower lactic acid levels. Institution Correctional Class II B Argamakmur is one of the Unit executor Technical (UPT) in the field penitentiary which is included in the work area of the regional office of the Bengkulu Ministry of Law and Human Rights which is located at Jalan AK Gani No. 121 Gunung Agung Village, Argamakmur District, North Bengkulu Regency. Based on the results of researchers' observations conducted on February 1, 2022, these results indicate that fostered activities such as joint sports and gymnastics are rarely carried out by the prison, which ideally in 1 (one) month the prison holds at least 4 gymnastic activities but only 2 a month. Sports activities at Argamakmur II B Prison are rarely carried out. In addition to doing independent sports, there are no sports facilities available. The observation results also show that the conditions of the detention room at Lapas II B Argamakmur are quite cramped, not proportional to the number of inmates in the room, so that inmates are unable to move freely. The results of interviews with prison officers found that the health checks for inmates at Lapas II B Argamakmur were rarely carried out, so the physical fitness level of narcotics inmates at Lapas II B Argamakmur was not known.

Based on the description of this background, the researcher is interested in conducting research with the title "Analysis of Vo₂ Max Levels in

Narcotics Correctional Families at Class II B Argamakmur Prison".

METHODS

This research includes the type of research Qualitative descriptive, namely a research method based on the philosophy of positivism, is used to examine certain subjects or objects, data collection uses research instruments, data analysis is quantitative/statistical in nature, with the aim of testing established hypotheses (Arikunto, 2013). Total sampling is used as a way to take research samples so that all members of the population are used as research samples (Nopiyanto & Pujiyanto, 2021). After the multistage fitness test is carried out and predicted using the VO2Max prediction table and the results are known, the prediction results are then categorized based on the norm table to find out the fitness category. Below are the norms of the multistage fitness test.

RESULTS

Based on the results of data retrieval of respondents it is known that of the 40 respondents the youngest age of 25 years with the oldest being 33 years and with a very productive age between 27 to 28 as many as 18 people or 45%, while at the level of education the inmates consist of 4 elementary school graduates or 10%, junior high school graduates as many as 6 people or 15%, and high school graduates as many as 30 people or 75%, while previous jobs were farmers as many as 35 people or 87.5%, entrepreneurs as many as 4 people or 10%, and have not worked as much 1 person or 2.5%,

Based on the punishment received by the inmate depends on the form of the mistake committed from 40 inmates Class II B Argamakmur Prison 37 People 92.5% are Users, and 3 Users as well as Sellers of

the type of methamphetamine and Marijuana goods argamakmur, it can be argued that the average sentence received is 3 years, the longest is 5 years and the most low 1.5 Years.

Based on the results of the tests carried out, it can be stated that out of 40 respondents from Narcotics Prison Class II B Argamakmur, North Bengkulu Regency, it is known that 36 inmates or 90% have VO2 max test results in the Less category, while 4 inmates or 10% have medium category.

DISCUSSION

The resilience of the energy system is the ability to perform the organs of the human body within a certain period of time. VO2 Max is the maximum oxygen volume level that is used and processed by a person during intensive physical activity and one way to determine VO2 Max endurance is by using the MFT test. VO2 max is the product of maximum cardiac output and maximum O2 extraction by tissues, and both increase with practice. The average VO2 max is 38 mL/kg/min in active healthy men and about 29 mL/kg/min in active women, this figure is lower in inactive people (Ganong, 2018).

Based on the results that have been obtained, it is known that out of 40 residents of the North Bengkulu Arga Prosperous Drug Prison, they have aerobic endurance or VO2 Max with a low MFT test with a score below the average. With 36 people having aerobic endurance in groups Not enough. Therefore, almost all of the fostered drug prisons have a prosperous family, North Bengkulu VO2 Max The low one. This is caused by several factors, one of which is the factor that is owned by drug-trained prison residents, namely physical factors or low fitness factors due to lack of activity or physical exercise in prisons. Differences

in physical intensity and exercise certainly affect endurance or fitness when a person carries out intensive physical activities or activities. This is in line with the statement of Suharjana (2013) who said that in general, a longer training frequency will lead to better physical fitness.

In addition to the physical exercise factor, the next factor is the effect of using narcotics drugs. Users/users seem thinner, have pale skin, red and dry eyes, and enlarged pupils. Showing symptoms of addiction, someone who uses drugs tends to look very tired and has a less than perfect physical condition because he can't sleep for days. It's easy to get sick because drugs contain harmful substances, if misused it can cause a person's immune system to decrease. This makes a drug abuser more susceptible to illness, including frequent colds, flu, allergies, and other ailments. With this explanation, it can be concluded that the factor of narcotics use is a factor that greatly influences the physical and fitness of a person which causes the results of VO 2 Max of assisted prison residents narcotics the affluent price is low.

Furthermore, there are 4 residents of drug assisted prisons in the medium group. From these results it can be seen that there are also drug prison inmates who are in category medium which means having a moderate or average VO2 Max level. Based on the results that have been obtained, this occurs because 4 person it has VO2 Max who are being because they often do physical exercise or activities in the prison such as doing stretching every morning and routinely do existing sports in the prison, this is known after being monitored for several weeks, therefore they can have VO2 Max which in category currently. VO2 max or a person's ability to breathe oxygen will be good if the aerobic endurance is good. The greater the capacity of a person's VO2 max, the load

when it gets heavy intensity in a match can be overcome (Budiwanto, 2018).

CONCLUSION

Based on the research and data collected from the results of the "beep test" to measure the level of physical condition VO2 max in Class II B Correctional Families (WBP) Class II B Correctional Institutions, it can be concluded that II B Argamakmur is included in the category of "less than once" out of 40 respondents, it is known that 36 inmates or 90% have VO2max test results that are categorized Less, while 4 inmates or 10% have category currently.

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