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Physical Fitness Level of Female Futsal Athletes at STKIP JB Angels Club

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ABSTRACT

Futsal is a team sport that relies on high-intensity, intermittent activities that require athletes with excellent physical fitness. Optimal fitness condition (VO2Max) is the main capital for every futsal athlete in order to fully concentrate and work optimally from the beginning to the end of the match. purpose of knowing the level of physical fitness of STKIPJb Angels Club futsal athletes. With the descriptive quantitative research method, with a total sample of 12 female athletes who are members of the STKIPJB Angels Futsal Club, athletes' physical fitness is measured using the MFT test, and the data is analysed by descriptive quantitative. Athletes who have VO2Max conditions with excellent categories amounted to 2 (16.7%), good 2 athletes (16.7%), enough 5 athletes (41.6%), less 3 athletes (25%), while the category is very less than 0 (0%). Most athletes' physical fitness is in the moderate category, so suggestions for coaches to be able to develop training programmes that can improve the fitness (VO2Max) of futsal athletes This is because futsal is a team sport that relies on high-intensity intermittent activity, so it requires athletes with excellent physical fitness. Further studies are needed to determine the factors that cause low physical fitness and provide effective exercises to improve athletes' physical fitness.

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INTRODUCTION

Futsal is currently one of the sports that is experiencing rapid development and touching various circles of society (Kharisma & Mubarak, 2020). One indicator is the increasing number of futsal courts in every part of Indonesia. In addition, more and more people of various ages, ranging from young people to adults, women and men, students, workers, and even public figures, like to play futsal. The motivation and purpose of exercising also vary; some are to achieve achievements, some are just for recreational purposes, some are to get excitement, and some are as a socialisation event (Prasetyo & Yunarta, 2022). The



sport of futsal is formed from the sport of soccer; although it has similarities in terms of the game, in terms of the field, tools, and rules, it is very different from soccer. In futsal sports games, players are not only required to move, but they are also required to apply other physical movements, such as the movements of controlling the ball, passing the ball, dribbling, chasing the ball, kicking the ball, then running and turning suddenly, even being able to turn the body up to 180 degrees, jumping, and physical contact with opponents, which all require good technical quality and physical condition at a certain level in order to play futsal sports well (Ibrahim & Kafrawi, 2019).

This sport requires players to have good physical condition, stamina, technique, tactics, and mentality when playing it (Nurdiansyah et al., 2022; Suryadi et al., 2021). Futsal is included in the category of big ball games, which in their play require physical ability and high cardiorespiratory endurance. Futsal athletes must have good anaerobic and aerobic endurance because this sport has a high intensity that demands maximum performance from the players (Wenly et al., 2021). In addition, the techniques of futsal can be learned and mastered if supported by physical fitness. The level of physical fitness is one of the factors that can determine the quality of a player's performance in futsal. In a futsal game, excellent physical fitness is needed because this game carries out activities continuously for a long period of time. Futsal players who have a low level of physical fitness will quickly experience fatigue and slow movements and are unable to develop techniques to play futsal well (Ibrahim & Kafrawi, 2019).

According to Ma'arif & Prasetyo (2021), A person's physical fitness is said to be good if a person is able to carry out daily activities and work and adapt to physical loading without causing excessive fatigue and is free from disease. To improve physical fitness, training should be carried out 3-5 times per week (Irianto, 2004). With regular training, physical fitness will increase, and achievement has a greater chance. One of the efforts made by the coach at the STKIP JB Angels futsal club to improve physical fitness is to compile and provide training programmes to athletes in training. But in reality, what happened was that it was identified that there were still some futsal players who easily experienced fatigue when participating in physical training. Futsal not only requires technique and tactics, but physical conditions also support the game. To find out the level of physical fitness of STKIP JB Angels futsal players, it is necessary to conduct a physical fitness test for players. The results of the physical fitness test can be used as evaluation material to improve the ability of body organs, socio-emotional skills, sportsmanship, and the spirit of competition. In addition, it is necessary to identify the level of physical fitness of each athlete so that the coach can develop an independent training programme for athletes to improve their physical fitness.

10 MATERIALS AND METHODS

This research is descriptive quantitative research because it aims to provide an accurate description of the stages or processes, both verbal and numerical, of the subjects in this study (Arikunto, 2019). The sample in this study was 12 STKIP Jb Angles Futsal players. The instruments in this study were the following test procedures:

1. MFT is performed by running back and forth over a distance of 20 metres. Start with Running at a slow intensity will gradually get faster according to the rhythm, which will also get faster. If the athlete is unable to follow the rhythm, it means that the athlete's maximum ability is at the alternating level.
2. The time for each level is 1 minute.
3. In level 1, a distance of 20 metres is given a time limit of 8.6 seconds for 7 returns.
4. In levels 2 and 3, a distance of 20 metres is limited to a travel time of 7.5 seconds in 8 returns.

5. Levels 4 and 5 covered a distance of 20 metres within a time limit of 6.7 seconds for 9 turns, and so on.
6. Every 20 metres travelled, as well as at the end of each level, a 1-time sound signal will be given.
7. When starting the test, it is done with a standing start, with both feet behind the starting line. After the "ready yes" signal, the athlete runs to the rhythm towards the line until one foot must cross the boundary line first.
8. If the sign or sinya sound has not been heard but the athlete has crossed the boundary line, then the athlete must wait for the sound sign and then may continue running. Conversely, if the athlete has not crossed the boundary line but has heard the sound sign, then the athlete must run faster until the success of crossing the new
9. If the athlete delays following the rhythm in crossing the boundary line twice in a row, the athlete is considered to have finished the test, which means that the athlete's maximum ability is at that level.
10. After completing the test, athletes are advised not to stop or sit down immediately but to keep moving and decrease the intensity for 3-5 minutes as a cooling-down.

After obtaining the data from the fitness test results using the MFT, a two-stage conversion is then carried out. The first stage is the conversion of test results into VO2Max scores using the MFT norm table. The second stage, after obtaining the VO2Max score, is then categorised into the VO2Max categorization norm table for men, as shown in Table 1 below:

Table 1. Classification Norms for Female Vo2Max Level (Mi/Kg/Min)

No	Vo2 MAX	Category
1	>49	Excellent
2	39 – 48,9	good
3	31 – 38,9	Simply
4	24 – 30,9	Less
5	< 23,9	Very Less

RESULTS AND DISCUSSION

Research Results

Based on data collection through the Multistage Fitness Test that has been carried out, the results are shown in the table below:

Table 2. Percentage of VO2Max Level of STKIPJb Angels club

No	VO2Max	Category	Frequency	Percentage
1	>49	Excellent	2	16.7 %
2	39 – 48,9	good	2	16,7 %
3	31 – 38,9	Simply	5	41.6 %
4	24 – 30,9	Less	3	25 %
5	< 23,9	Very Less	0	0%

Based on Table 2, it can be concluded that athletes who have VO2Max conditions with excellent categories amount to 2 (16.7%), good 2 athletes (16.7%), enough 5 athletes (41.6%), less 3 athletes (25%), while the category is very less than 0 (0%)

DISCUSSION

The main finding in this study is the fitness level (VO2Max) of STKIPJb Angles Club futsal athletes who are in the excellent category totaling 2 (16.7%), good 2 athletes (16.7%), enough 5 athletes (41.6%), less 3 athletes (25%), while the category is very less 0 (0%). Seeing these findings, it means that the fitness condition of the STKIP JB Angels club futsal athletes is mostly at a moderate level. The average VO2Max of STKIPJB Angels club athletes is in the medium category. When compared to the VO2Max of professional soccer players, which is in the range of 55 to 65 ml/kg / min (Myrna et al., 2005), of course it is still very far from ideal. This condition can be influenced by several factors, including age, gender, genetics, nutrition, altitude, and exercise (Maulana, Saleh, & Hidayat, 2022). Aerobic capacity development is one of the determining factors for the athlete's performance during the match. By having good physical fitness, it can improve the ability of the body's organs socially and emotionally, increase motivation, foster a spirit of sportsmanship, and foster a spirit of competition (Rumpoko et al., 2022). In addition, optimal productivity or work performance will also be able to be achieved with physical fitness conditions that are able to adapt to various physical and psychological loads that are received properly (Bachtiar et al., 2022; Rohman et al., 2021).

The physical condition of VO2Max of female futsal athletes of STKIPJB Angles really needs to be improved because it is still in the category of less, and with this, athletes and coaches must work more together to improve the physical condition of VO2Max to be even better. If the frequency of training is less, then the level of physical fitness is less. Unprogrammed training also provides opportunities for athletes to make training less controlled (Arifianto & Raibowo, 2020). There are three possibilities that can occur, namely: too heavy so that it exceeds the athlete's ability; too light; and not in accordance with the ability so that the adaptation of physical exercise is not optimal. The training process starts from easy to difficult, and in this process, the cognitive stage of learning begins (Alexon et al., 2021). A coach's efforts in improving the physical condition of athletes can be done by providing the right training programme to athletes (Arifianto & Raibowo, 2020), especially in the physical condition of the athlete's VO2Max (Gustian, Supriatna, & Purnomo, 2019). Because the characteristics of futsal players require excellent physical condition, Physical condition plays a very important role in creating an effective game pattern.

To make futsal players who have achievements, proper coaching is needed in the training process because the best achievement is one of the goals of every athlete and coach in achievement sports, and this can be achieved if athletes have good VO2Max physical condition and are followed by techniques, tactics, and strategies in playing. Therefore, the coaching team needs to develop an exercise programme that can increase VO2Max. Programmed cardiovascular endurance training will be able to increase VO2Max according to the needs of each sport (Maulana et al., 2022). One form of exercise that is effective in increasing VO2Max is circuit training. As shown by the results of research that tested the relationship between circuit training and interval training to increase VO2max (Taufik et al., 2021). Based on the results of these two types of exercise, circuit training was found to be better than interval training. There is a significant influence between interval training and VO2Max results (increase). (2) There is a significant influence of training concentration on VO2Max (increase). (3) There is a significant difference between interval training and circuit training in terms of VO2Max improvement. Other forms of exercise that are also considered effective in increasing the VO2Max of futsal athletes are fartlek and cross-country training. The results showed that fartlek and cross-country training increased the VO2Max of futsal athletes (Gumantan & Fahrizqi, 2020).

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CONCLUSION

The conclusion of this study is that the fitness level of STKIPJB Angles Club Futsal athletes is in the excellent category totaling 2 (16.7%), good 2 athletes (16.7%), enough 5 athletes (41.6%), less 3 athletes (25%), while the category is very less 0 (0%). Therefore, it is important for coaches to be able to develop training programs that can improve the fitness (VO2Max) of futsal athletes. This is because futsal is a team sport that relies on high intensity intermittent activity so it requires athletes with excellent physical fitness.

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CONFLICT OF INTEREST

There is no conflict interest in the article.

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