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Research Article

The Impact of Pencak Silat Training at Night on Physical Fitness Levels

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Abstract:
Several pencak silat schools in Bandung in particular often carry out training at night. The pencak silat school at BTC performs this exercise from 10:00 PM to 3:00 AM. It is very interesting to research, especially its impact on physical fitness and overall healthThe purpose of this study is to assess how engaging in pencak silat training during the evening affects physical fitness. This investigation employs an ex post facto approach with a Contilation research design. The participants in this research were individuals who are part of the Pencak Silat Pencak Silat Faithful Heart Terate Brotherhood in Bandung City. The research instrument uses the Multistage Fitness Test. Using quantitative survey data analysis techniques. Based on data analysis, it was concluded that there was an influence for training pencak silat focuses on physical fitness and takes place in the evening.. The results of the study showed that members of the Bandung City Pencak Silat Brotherhood Setia Hati Terate had a diverse distribution of fitness levels: 13.6% had a low fitness level, 40.9% had a medium fitness level, 36.4% had a fair fitness level, 9.1 % achieved a good level of fitness, while none achieved a high level of fitness. Consequently, it can be inferred that practicing pencak silat at nighttime yields favorable results, even though it is not significant or only reaches a moderate fitness level. This is mainly due to the intensity of training which tends to be low and does not increase consistently over time, resulting in slow and non-optimal physical improvement.
Keywords: Exercise, Night Sports, Pencak Silat, Physical Fitness

1. INTRODUCTION

Everyone highly desires physical fitness as a condition. People that are physically healthy will be able to project an air of energy and enthusiasm, which will increase productivity at work. The public's contemporary recognition of the advantages of physical fitness is demonstrated by the growth of fitness centers and the popularity of sports, both of which are products of the pursuit of physical fitness (Alfrey, 2024; Saleh & Septiadi, 2021). Today's society is starting to understand the importance of sport. This is due to changes in lifestyle which require people to carry out daily activities. Apart from that, some people do not have enough free time to do sports. Some of them exercise at night because they have to work in the morning (Mushab et al., 2020). Some exercise in the morning, but many also exercise in the evening. Therefore, morning exercise is a common habit, compared to evening exercise (Goldberg et al., 2024). This is because differences in someone's schedule affect the availability of time for exercise. Apart from paying attention to the intensity of exercise when exercising, a person will get maximum benefits if they do sports activities in the right way (Bommarito & Millar, 2024).

Running at night has a positive impact on physical fitness levels of 65% with a good physical fitness classification (Bodziony & Stetson, 2024). Apart from that, night running had a significant impact on reducing body fat in Bandung Explorer participants (Bandrexhood) (Mathew et al., 2024). Apart from that, the Vo²Max levels of aerobic exercise at night are mostly good (Malin et al., 2024). Moreover, there is an effect of evening sports in terms of the level of Indonesian physical fitness on futsal athletes at senior high school 2 Sinjai, South Sinjai District, Sinjai Regency (Silva et al., 2024).

High intensity exercise done at night has been shown to have a negative impact on sleep quality. Previous research by (Ariyandy et al., 2024) showed that there was a significant impact of training at night on the quality of Espirito Futsalismo Surabaya athletes. Fatigue levels from evening physical activity may be associated with an increased risk of insomnia (Carlos et al., 2024). Thus, these findings suggest that evening physical activity can have a serious impact on athletes' sleep patterns and sleep quality.

The results of initial research observations at a pencak silat training center at BTC, found that several individuals practiced pencak silat at night, namely

from 22.00 - 03.00. This shows that practicing Pencak Silat at night is a common practice among practitioners. Therefore, the urgency of the research in question is to better understand the impact and benefits of pencak silat sports, especially pencak silat at the Bandung branch of the Setia Hati Terate college, where the specifications of this college are more about self-defense martial arts (fighter) at night on physical fitness, as well as how this practice can make a positive contribution to overall public health, even though research has previously been conducted on the fitness of pencak silat athletes (Hambali et al., 2020), but have not studied the impact of night training. In this way, this research will provide deeper insight into the habit of exercising at night and dig deeper into its impact on physical and mental well-being.

This research examines the impact of evening pencak silat training on physical fitness, providing insight into the contribution of evening exercise to health. Previous findings have shown the positive impact of evening exercise on various sports, and this research will explain how pencak silat, a typical Indonesian martial art, affects fitness. It is hoped that the results can provide useful recommendations for pencak silat practitioners and the public to improve fitness and choose training times that suit their schedules and preferences.

2. MATERIAL AND METHOD

This research uses an ex post facto method with a cumulative design, because the researcher only wants to know the impact of treatment that has occurred in recent times. The Ex post facto model was chosen because pencak silat training at night has been carried out since 2020 at the Bandung Branch of the Bandung Branch of the Faithful Heart Terate Brotherhood. The population in the study consisted of 56 members of the Bandung Branch of the Bandung Branch of the Loyal Heart Fraternity Pencak Silat. The selected research sample was 22 people who were directly in the field, consisting of two training sites, just at the Ujung Berung and BTC branches. Convenience sampling was used to determine this sample, meaning that it was chosen at random depending on the subjects' or units' availability throughout the data collection process (Nuraini et al., 2024). Apart from that, this research also applies a purposive sampling technique to add certain criteria to get better results (Reilly & Reeves, 2024), namely aged 19 – 35 years and taking part in regular training three times a week for a period of one month.

The research instrument used for data collection was the Multistage Fitness Test or often known as the bleep test. The Multistage Fitness Test is used as an assessment tool to monitor athletes' progress in absorbing oxygen optimally, known as Vo²Max (Weakley et al., 2024). Following data collection, quantitative descriptive data analysis with a percentage approach is used to analyze the data with the goal of providing an overview of the variable's status by directly describing its state based on certain criteria that match the real-world scenario.

3. RESULT AND DISCUSSION

1.1 Result

The results of this research show and discuss the data that has been collected and analyzed based on research methods. After the data was collected, the average, standard deviation, minimum value and maximum value were calculated using IBM SPSS Statistics 26 software. The results of these calculations can be found in the following table:

Table 1. A Summary Of The Test Result Data

Variable	Mean	Std.	Min	Max
Multistage Fitness Test	±31.71	±6.26	24	45

The information in Table 1 indicates that the physical fitness test results have an average (mean) value of 31.63 and a standard deviation of 6.302. 24 was the lowest figure ever recorded, and 45 was the highest. The findings of the percentage analysis were then displayed in order to determine the distribution of the physical fitness test results for the Pencak Silat members of the Faithful Heart Terate Brotherhood, after the computation of the average value and standard deviation. The outcomes of a physical fitness test conducted using the multistage fitness test/bleep test are listed below:

Table 2. Physical Fitness Test Percentage Test Results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	3	13.6	13.6	13.6
	Currently	9	40.9	40.9	54.5
	Moderate	8	36.4	36.4	90.9
	Good	2	9.1	9.1	100
	Excellent	0	0	0	100
	Total	22	100	100	

Based on table 2 above, researchers can analyze the distribution of physical fitness levels of pencak silat members of the Bandung City branch of the Faithful Heart Terate Brotherhood based on categories. Three people (13.6%) had a low fitness level, nine people (40.9%) had a medium fitness level, followed by eight people (36.4%) who achieved a fair fitness level, and two people (9.1%) achieve a good level of fitness. A total of participant tested was 22 people. Then the researcher will present the data in diagram.

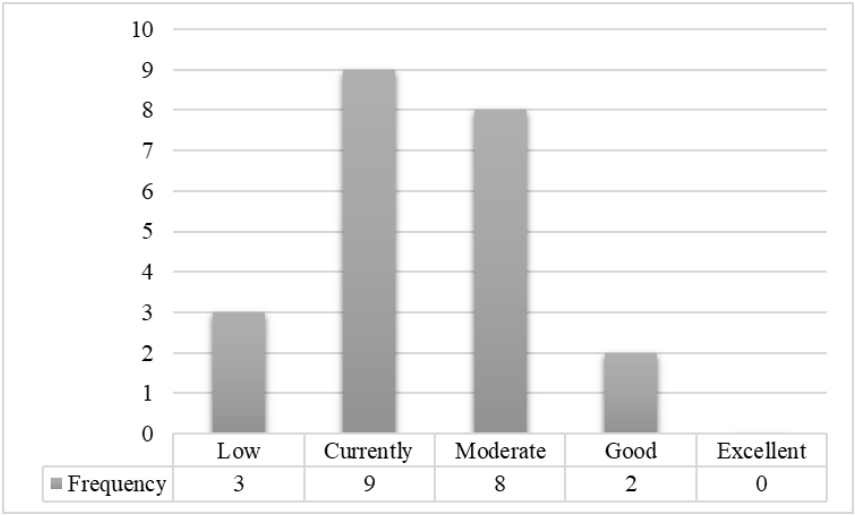

Figure 1. Bar Chart of Multistage Fitness Test Results

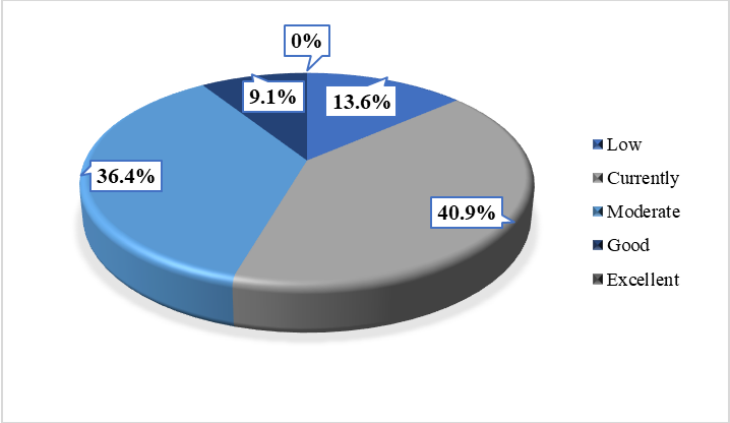

Figure 2. Percentage of Multistage Fitness Test Results

In addition to the results, the Loyal Heart Terate Brotherhood pencak silat students' level of physical fitness is known to be zero percent (0%), two persons in the good category (9.1%), eight people in the fair category (36.4%), nine people in the medium category (40.9%), and three people in the low category (13.6%).

1.2 Discussion

The training carried out by the Setia Hati Terate college is almost the same as the sports training process in general, starting from warm-up, core and cool-down. However, this university still does not pay enough attention to the duration of time and also the amount of intensity, even though the frequency of training remains consistent, even though the duration

of time and intensity must be interrelated with the frequency of training, so these things will greatly influence the result of a person's physical fitness. It is important to note that certain factors may influence these results. For example, the frequency of training, intensity of training, and duration of training at night can impact significantly to the degree of achieved physical fitness. Additionally, individual characteristics such as age, initial fitness level, and general health may also influence the results (Nur et al., 2024). Therefore, it is necessary to carry out further analysis to understand in depth the factors that influence the level of physical fitness in the context of pencak silat training at night.

Success in improving physical fitness depends on three main aspects: training frequency, training intensity, and training duration. Undergoing exercise 3-5 times a week, each session lasting 20 to 60 minutes, can help someone get more physically fit. In addition, it is It is essential to consider the intensity of the exercise session, which should range from 60% to 90% of the maximum heart rate (MHR), adjusted to the goals and type of exercise performed. Meanwhile, the length of exercise time, especially in fitness improvement and weight loss programs, usually ranges from 20 to 60 minutes (Panggraita et al., 2020). To obtain optimal benefits from physical exercise, it is important for a person to achieve a heart rate that is above 130 beats per minute or around 70% of the maximum intensity that his body can achieve. A heart rate that is in this range indicates that the body is working hard enough to improve cardiovascular fitness and increase muscle strength. When you reach this level of intensity, your body will begin to burn more calories, increasing your metabolism and increasing your overall physical endurance. Therefore, for those who wish to achieve significant results from physical exercise, it is necessary for you to track your heart rate within the specified range for the majority of the activity (Suryadi et al., 2024).

There are three training sessions per week with the duration from 22.00 to 02.00. There are four levels of physical exercise duration: (1) 15-30 minutes, 3 times a week for fitness, (2) 30 minutes, 4 times a week for weight control, (3) 30-45 minutes, 4 times a week for blood fat control, and (4) 45-60 minutes, 3 times a week for euphoric high. 16-60 minutes of exercise, 3-5 times a week can improve cardiovascular function. The duration of exercise should be adjusted to the intensity of the activity, with light activity requiring a longer duration. To increase fitness in pencak silat training and avoid injury, it is recommended to do light to moderate physical activity for a long duration, especially for adults who are not athletes (Martín-Rodríguez et al., 2024). In order to achieve optimal levels of physical fitness, it is important to adjust training frequency to body endurance. According to WHO recommendations, physical exercise should be done for every week options include 150–300 minutes at a moderate effort, 75–150 minutes at a high intensity, or a combination of the two (Novero et al., 2022).

In understanding the impact of time of day on exercise performance, research suggests that the superiority of morning exercise compared to evening exercise cannot be automatically guaranteed (Mosquera-Lopez et al., 2023). A psychologist's perspective highlights that timing of exercise has a significant influence on a person's level of performance. Although it is generally assumed that morning exercise is more effective, a surprising fact is that the best time to exercise is not always fixed in the morning. According to experts, the ideal time to exercise is relative and depends on the individual's body response to that time, illustrating that each person has a unique body rhythm (Saidi et al., 2021). The ability of the body to perform daily activities and labor without experiencing severe exhaustion is known as physical fitness. This allows the body to maintain its energy reserves to handle increased workloads (Maulana et al., 2022). The ability of the body to adapt to the physical load placed on it (by the labor performed every day) without developing excessive fatigue is known as physical fitness (Aniśko et al., 2024). Everyone needs to be in good physical shape in order to perform their jobs effectively and efficiently without being overly tired. Physical fitness is a condition of being in good health and having the capacity to perform tasks without being overly tired. Therefore, physical strength is the most important asset for carrying out daily tasks as needed. This means that the body's physical fitness reflects the functional capacity of the body system which is able to improving life quality in all physical activities (Drouet et al., 2024). Physical fitness is important and necessary for everyone, because a healthy body condition can influence one's activities. Therefore, if a person's body is fit or healthy, there are still other useful activities that can be done (Alhusami et al., 2024).

Physical fitness levels are influenced by age, gender, level of physical activity, smoking habits, food and nutritional intake, and health status. Heredity and genetics also play a role. Biological differences and

physical and metabolic changes influence fitness based on gender and age. Food and nutritional intake affects health and physical performance, while smoking can reduce lung capacity and have a negative impact on the cardiovascular system (Yusri et al., 2020), such as being able to improve psychological well-being (Yang et al., 2024).

The results of this study show the impact of evening exercise on physical fitness, where the results provide a not very significant impact. Several studies also reveal that there is actually no significant impact between morning and evening exercise, some experts even say that the right time to exercise is very relative and depends on each individual's body (Pramdhan et al., 2022). As for the results on physical quality, it is not necessarily the case that training in the morning is better than training in the evening (Thaher, 2020).

4. CONCLUSION

Research on the effect of nighttime pencak silat training on the physical fitness of Bandung City Faithful Heart Brotherhood members led to the conclusion that, although not statistically significant or only achieving a moderate level of fitness, the training had a beneficial effect. This is mainly due to the intensity of training which tends to be low and does not increase consistently over time, resulting in slow and non-optimal physical improvement.

The author suggests that the Bandung City Faithful Heart Terate Brotherhood develop a structured training program (short, medium and long), regularly carry out physical fitness tests at least once a month, increase the intensity of training gradually, and avoid smoking to achieve optimal physical fitness improvement.

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