THE EFFECTIVENESS OF INTERVAL TRAINING AND CIRCUIT TRAINING ON THE PHYSICAL CONDITION ABILITY OF DIY PETANQUE ATHLETES

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ABSTRACT

The aim of this research is to analyze the effectiveness of interval training and circuit training on the physical condition of DIY petanque athletes. The research method used was an experiment with a two group pretest-post test design. Participants in this research activity were Petanque athletes in the Special Region of Yogyakarta who took part in the 2023 BK PON selection. The treatment given to the samples was interval training and circuit training. The research instruments used in this study were the multistage fitness test (MFT) to measure VO2 max, arm muscle endurance was measured using the push up test, wall sit test to measure leg muscle endurance, Hand Grip Dynamometer to measure hand muscle compression strength, standing stork to measure balance, and wall pass to measure coordination. Data analysis techniques use normality, homogeneity and two-way ANOVA tests to test hypotheses.
Research results Based on the hypothesis provided, it can be concluded that there are differences in the influence of interval training and circuit training on the muscle endurance of the hands, feet and lungs of Pentaque DIY athletes. Circuit training is more suitable for building muscle strength and endurance compared to high-intensity interval training, which primarily improves cardiorespiratory function. Circuit training allows an athlete to train different muscle areas at each station, providing a full body workout and can be easily modified for any age or physical ability. The second hypothesis shows that there are differences in the influence of gender on the muscle endurance of the hands, legs and lungs of Pentaque DIY athletes. Studies show that men tend to have better endurance than women. However, this difference does not always mean that men are superior in sports that require muscle endurance, because other factors such as technique and strategy also play an important role in an athlete's success. The third hypothesis shows that there is no interaction between training methods and gender on the muscle endurance of the hands, legs and lungs of Pentaque DIY athletes. This shows that both men and women can use the same training methods to increase their muscle endurance. The fourth hypothesis stated that the group trained with circuit training had the most significant influence on the muscle endurance of the hands, feet and lungs of Pentaque DIY athletes. Circuit training is a training method that involves several different movements in sequence with short rest periods between each movement. This exercise can increase muscle strength and endurance so it is suitable for Pentaque DIY athletes who need good strength and endurance in the muscles of the hands, feet and lungs when playing. Apart from that, circuit training can also improve heart and lung health and burn calories effectively.

Kata Kunci: *interval training, circuit training, physical condition*