

Abstract

Introduction

The purpose of this study was to investigate the effect of a 12-week training program on the physical and psychological characteristics of young athletes. The study was conducted in a laboratory setting and involved 20 participants who were divided into two groups: a control group and an experimental group. The experimental group underwent a 12-week training program, while the control group remained sedentary. The physical characteristics measured included maximum oxygen consumption ($\dot{V}_{O_{2max}}$), maximum heart rate (HR_{max}), and maximum power output (P_{max}). The psychological characteristics measured included anxiety, depression, and self-esteem.

The results of the study showed that the 12-week training program had a significant positive effect on the physical and psychological characteristics of the experimental group. Specifically, the experimental group showed a significant increase in $\dot{V}_{O_{2max}}$, HR_{max} , and P_{max} compared to the control group. Additionally, the experimental group showed a significant decrease in anxiety and depression, and a significant increase in self-esteem compared to the control group.

Conclusion

In conclusion, the 12-week training program had a significant positive effect on the physical and psychological characteristics of young athletes. The results of this study suggest that a 12-week training program can be an effective intervention for improving physical and psychological health in young athletes.

References

1. Smith, J. (2010). The effect of exercise on mental health. *Journal of Sport and Exercise Psychology*, 32(1), 1-10.