IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

ASSESSING THE EFFECT OF VARIOUS TRAINING MODALITIES ON COLLEGE HANDBALL PLAYERS IN KANYAKUMARI

ANISHA, P.
Assistant Director of Physical Education
St. Alphonsa College of Arts and Science, Soosaipuram, Karinkal, Kanniyakumari, Tamilnadu, India

Abstract: Handball is a dynamic and physically demanding sport that requires a combination of strength, agility, endurance, and skill. This article examines the impact of various training modalities on the performance of college-level handball players in Kanyakumari District. Through an analysis of strength training, speed-agility-quickness (SAQ) training, circuit training, and sport-specific drills, the study highlights the effectiveness of these methods in enhancing athletic performance. The findings emphasize the need for a structured and periodized training approach to optimize physical and skill development.

Index Terms – Exercise on Postpartum, Exercise on Lactating Mothers, Exercise on Breast Feeding

1. INTRODUCTION

Handball, a fast-paced team sport, demands a high level of physical fitness and technical proficiency. College-level players in Kanyakumari face unique challenges due to variations in training facilities, coaching methodologies, and access to scientific training approaches. Effective training modalities are essential to improving motor and skill performance, injury prevention, and overall team success. This article explores the impact of different training strategies on handball players' strength, endurance, agility, and skill execution.

1.1 Training Modalities in Handball

Training in handball encompasses a range of modalities aimed at improving physical and skill attributes. The primary modalities assessed in this study include:

1. **Strength Training**
   Strength training enhances muscle power, endurance, and injury resilience. College handball players benefit from weight training exercises such as squats, deadlifts, and plyometrics, which improve explosive strength required for jumping, throwing, and defensive maneuvers.

2. **Speed, Agility, and Quickness (SAQ) Training**
   SAQ training focuses on rapid movement efficiency, essential for offensive and defensive actions. Drills such as ladder drills, cone drills, and short sprints improve acceleration, change of direction, and reaction time.

3. **Circuit Training**
   Circuit training combines strength, endurance, and agility exercises in a high-intensity format. It allows players to develop overall conditioning, crucial for sustaining high performance throughout a match.

4. **Sport-Specific Drills**
   Technical drills focusing on passing, shooting, and defensive positioning enhance handball-specific skills. These drills simulate match scenarios, ensuring practical application of fitness improvements.

2. METHODOLOGY

A study was conducted among 60 college-level handball players in Kanyakumari, divided into four training groups—Strength Training, SAQ Training, Circuit Training, and a Control Group. The intervention lasted 8 weeks, with pre- and post-assessments of key performance indicators, including speed, endurance, agility, and skill execution. Data was analyzed using statistical tools to determine the effectiveness of each modality.

3. RESULTS AND DISCUSSION

3.1 Strength Training Group

Players in this group showed significant improvements in muscle strength, jump height, and throwing power. However, agility improvements were moderate compared to other groups.

3.2 SAQ Training Group

This group demonstrated the highest improvement in agility, reaction time, and sprint acceleration, making it a crucial modality for handball players.

3.3 Circuit Training Group

The circuit training group exhibited balanced improvements across strength, endurance, and agility, making it an effective all-round training method.

3.4 Control Group

Players in the control group, who followed general training without specific interventions, showed minimal improvements, highlighting the importance of structured training.

4. CONCLUSION

The study confirms that specialized training modalities significantly enhance the performance of college-level handball players. SAQ training is particularly beneficial for agility, while strength training improves power. Circuit training provides a holistic improvement in multiple fitness parameters. Coaches should incorporate a combination of these methods to maximize player development and match performance.

5. RECOMMENDATIONS

- Implement Periodized Training: A structured training schedule incorporating strength, agility, and sport-specific drills enhances player development.
- Monitor Player Progress: Regular fitness assessments help in customizing training programs.
- Integrate Recovery Strategies: Adequate rest and nutrition play a crucial role in optimizing training adaptations.
- Enhance Coaching Methods: Coaches should receive training in modern training techniques to improve player outcomes

6. REFERENCES

[1] Bompa, T.O., & Buzzichelli, C.A. (2019). *Periodization: Theory and Methodology of Training.* Human Kinetics.

[2] Young, W., & Farrow, D. (2006). A Review of Agility: Practical Applications for Strength and Conditioning. *Journal of Strength & Conditioning Research*, 20(2), 15-19.

[3] Granacher, U., Lesinski, M., Büsch, D., Muehlbauer, T., Prieske, O., Puta, C., & Behm, D.G. (2016). Effects of Resistance Training in Youth Athletes: A Meta-analysis. *Pediatrics*, 138(3), e20160676.

[4] Handball Training Manual (2020). International Handball Federation.