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Impact of Hand Eye Co-ordination Training in Table Tennis Players: A Literature Review

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ABSTRACT

Table tennis and other sports requiring accurate interceptive movements depend heavily on Hand-eye Coordination (HEC). Numerous studies demonstrate how HEC improves all aspects of sports performance, such as serve practice, stroke accuracy, and game-specific abilities. With an emphasis on its function in performance enhancement and real-world applications, this study looks at previous studies to evaluate the effects of HEC training on table tennis players.

This review aimed to explore the effects of hand-eye coordination training programmes on table tennis players' motor skills, game-specific performance. Databases such as Google Scholar, Web of Science, Scopus, EBSCO, and PubMed were used to review research material from 2011 to 2024 using keywords like HEC training, table tennis, and injury prevention. Five studies out of a starting pool of 1327 publications satisfied the requirements for inclusion. These experimental investigations includes techniques involving audiovisual aids, reaction drills, and sport-specific exercises to improve HEC. The duration of the interventions was 4–8 weeks. Paired t-tests, MANOVA, and Pearson's correlation coefficients were used for the data analysis. Review showed there was improvement in players' motor skills, sensory performance, serve accuracy, and backhand stroke precision. The participants who received HEC training performed significantly better than those in control groups and also shows male participants often performed better than female participants. Focused HEC training strongly improved key performance skills, enhancing players' overall abilities. Regular training regimens that include these activities enhance response times, serve skills, and stroke accuracy. To optimise player growth, coaches are urged to use cutting-edge HEC training methods including audiovisual aids and quick-reaction drills.

Keywords: Motor skills, Sports performance, Stroke accuracy.