Meta Analysis of the Influence of plyometric Training on Chinese Volleyball Players' Jumping Ability

Wu Xue 1, Zhang Ming 2

1Beijing sport University; 2Beijing sport University

Abstract:
Objective: to comprehensively analyze and discuss the change of jumping force of Chinese volleyball players after plyometric training, study its influence effect through quantitative analysis, and determine the reasons for the difference of jumping force effect, so as to provide scientific and efficient training means for the improvement of jumping force of Chinese volleyball players. Methods: literature and meta-analysis were used in this study. In the databases of China HowNet, Wanfang and VIP, the documents such as volleyball, bouncing force and rapid telescopic compound training are searched by keywords. Sort out the obtained documents through Noteexpress and complete the document screening. Via revman5 The bias risk assessment tool in 3 completes the risk bias assessment and realizes the consolidation and sorting of data. Results: 1 67 literatures were retrieved in the preliminary screening. After screening, 7 literatures were finally included in this study. The bias risk assessment has good reliability. The included literature is analyzed by random grouping method. The total confidence interval of the study was 4.00000 3, and the total confidence interval of Z was 4.00000 3, with statistical significance of 1 ~ 0.05. According to the subgroup analysis of intervention cycle, the intervention period above 8 weeks (MD = 5.08; 95% CI = 3.33 ~ 6.82) was better than that below 8 weeks (MD = 3.10; 95% CI = 0.44 ~ 5.76). The subgroup analysis of intervention frequency showed that training three times a week (MD = 5.09; 95% CI = 3.08 ~ 7.11) was better than that twice a week (MD = 4.17; 95% CI = 1.92 ~ 6.43). Conclusion: the plyometric training can significantly improve the jumping ability. The intervention period is more than 8 weeks, and the intervention frequency of 3 times a week is the best to improve the jumping force.

Key words: plyometric training; jumping; volleyball players; Meta analysis

References: