

Abstract

Title: Utilization of Plyometric Methods to Enhance the Combat Readiness of Military Personnel: A Systematic Review

Objectives: The aim of this work is to conduct a systematic review of scientific studies focused on the utilization of plyometric training methods in military personnel and to analyze how it can contribute to enhancing their combat readiness.

Methods: This bachelor's thesis was conducted in the form of a systematic literature review. The PRISMA international guidelines were chosen as the methodological approach. For the initial selection of relevant studies, a script was created to search the online databases Web of Science, Scopus, and PubMed. For further addition an unsystematic search was conducted in the Google Scholar database. The relevance of the retrieved studies was assessed based on selected criteria, and the chosen studies were subjected for synthesis.

Results: In the systematic review 4 articles were analyzed. Based on the study results, it was found that the plyometric method has a very positive impact on improving soldiers' combat readiness. The main areas of improvement included explosive strength, maximal strength, agility, sprint speed, and vertical jump. The use of plyometrics in PAPE (Post-Activation Performance Enhancement) protocol for single-time improvement in the ACFT (Army Combat Fitness Test) results was found to be unsuitable. Plyometrics were most frequently combined with strength training, and the most common exercises included various forms of vertical jumps and single-leg hops.

Conclusion: Plyometrics is a very popular method, but based on the results, this topic is very under-researched in the military environment. However, its use could be very beneficial for the training of military personnel. Therefore, we recommend conducting further research on the mentioned population.

Keywords: plyometric, stretch-shortening cycle, army, military personnel