



## Comparison of prevalence scapular dyskinesia among professional volleyball, handball and basketball players

### Poster Presentation

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### Abstract

**Introduction:** Optimal scapular function is associated with optimal shoulder function. Multiple roles of the scapula have been identified in the humeral function and throwing while scapular dysfunction continues to be associated with various shoulder injuries. Although scapular dyskinesia may be common in overhead athletes, various reports have shown that identification and management of the alterations can result in improved rehabilitation and performance outcomes. This study aimed to investigate the comparison of prevalence of scapular dyskinesia among athletes in three different sports.

**Methods:** The research method was descriptive. The statistical sample were 150 individuals with obvious scapular dyskinesia; 50 players were assessed in a convenience sampling from each sport. Participants were classified with obvious scapular dyskinesia during the weighted abduction and flexion task of the scapular dyskinesia test, and were compared with each other. Scapular position assessed by lateral scapular slide test at 3 positions (rest, 45° and 90°), and the scapulohumeral rhythm at 4 positions (0, 45°, 90°, and 135°) with inclinometer. Kolmogorov-Simonov test was used to assess the data normality; analysis of variance ANOVA and Chi-square tests were used to analyze the data.

**Results:** The results showed that there was significant difference between prevalence of scapular dyskinesia among three different sports ( $p=0/001$ ). The Post Hoc test results showed that there was significant difference between prevalence of scapular dyskinesia between volleyball and basketball players ( $p=0/027$ ) and between basketball and handball players ( $p=0/003$ ) But there was no significant difference between volleyball and handball players ( $p=0/870$ ).

**Conclusion:** Different movement patterns in the sports with overhead pattern cause a different prevalence of scapular dyskinesia. By accurately screening, assessing and identifying the movement impairments, the risk of injury, especially shoulder injuries, which has a direct relation with movement impairments, can be reduced in athletes.

### Keywords

Scapular dyskinesia; shoulder; volleyball; handball; basketball

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