

Abstract

Introduction: Shoulder pain is a common sport injury among athletes who perform highly repetitive motion as in wheelchair basketball. People with disabilities participate in wheelchair basketball as a form of recreational activity and as part of rehabilitation. However, participation in the sports may also put the players at risk of shoulder pain.

Aim: The aim of this study was to determine the prevalence and associated risk factors of shoulder pain among wheelchair basketball players in Johannesburg.

Methodology: This was a cross-sectional study. Three wheelchair basketball clubs in Johannesburg with players who were 18 years old were included in the study. The Wheelchair User's Shoulder Pain Index (WUSPI) questionnaire was used to assess the demographics, medical history and activities of daily living of the participants. Assessment of the intrinsic factors and extrinsic were conducted. These included measurements of shoulder internal and external range of motion, shoulder instability tests: apprehension and relocation test, sulcus sign test and load and shift test.

Results: A total of 25 out of 30 participants completed the questionnaire and participated in the physical assessment, yielding an 83.33% response rate. The average age of the participants was 33 years, with 21 males and four females. The average number of years of disability among the participants was 28 years. The prevalence of shoulder pain from the onset of wheelchair use was found to be 72% among the study participants while 52% reported shoulder pain at the time of the study. The average external range of motion was 91.87° for the left, and 94.44° for the right. Internal range of motion was 59.61° for the left and 61° for the right. Shoulder pain was associated with: shoulder internal range of motion ($p=0.03$), years of wheelchair use ($p=0.01$), the point classification ($p=0.03$), shoulder instability (0.02) and training loading ($p=0.01$).

Conclusion: The results of this study showed a high prevalence of shoulder pain. Shoulder pain was found to be associated with: shoulder internal range of motion, years of wheelchair use, point classification, shoulder instability and training loading. This study provides baseline information, which may help clinicians, to better develop treatment and rehabilitation programmes for shoulder pain among wheelchair basketball players.

Keywords: shoulder pain, wheelchair athletes, wheelchair basketball players.