

## Participation in Quad Rugby After Spinal Cord Injury: A Qualitative Study

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**PURPOSE:** A spinal cord injury (SCI) can cause temporary or permanent changes in sensory, motor, strength, and body functions below the level of injury. This can lead to functional impairments and decreased engagement in meaningful occupations. Research suggests that individuals with SCI do not participate in physical activity at the same rate as individuals without any impairment or disability (Jaarsma et al., 2014). This presents a significant concern as evidence suggests that a lack of physical activity among this population leads to increased secondary health complications, including cardiovascular, psychological, genitourinary, and musculoskeletal complications (Stephens et al., 2012). Adaptive sports present an opportunity for individuals with SCI to maintain appropriate levels of physical activity. Furthermore, evidence suggests community-based adaptive sports may increase motivation for rehabilitation (Rimmer, 2012). Participation in adaptive sports can help reduce secondary health complications and hospitalization and improve cardiorespiratory function and independence with daily activities (Stephens et al., 2012). However, evidence indicates that individuals with SCI are often not introduced to adaptive sports for many years after their injury (Malm et al., 2019). A recent study found an approximate 4-year transition from the time of injury to regular participation in sports and recreation for individuals with SCI (Malm et al., 2019). While there are several types of adaptive sports, limited research exists on quadriplegic athletes and the influence of rehabilitation on participation. Quad rugby is an adaptive form of rugby for individuals with quadriplegia, played indoors on a hardwood court with wheelchairs. The purpose of this study was to explore the lived experience of quad rugby athletes, with attention to facilitators, barriers, and potential benefits to quad rugby participation after SCI.

**DESIGN:** This qualitative study used a phenomenological approach to explore the lived experiences of quad rugby athletes. Participants were recruited via purposive sampling by distributing flyers to quad rugby teams across the United States (US).

**METHOD:** 12 participants from seven states across the US completed the semi-structured interview. All interviews were digitally recorded, anonymized, and professionally transcribed verbatim. Two researchers manually coded the interview transcripts. An inductive analysis approach was used to form codes, categories, and themes.

**RESULTS:** Multiple themes emerged: (1) the importance of early high-quality exposure to quad rugby; (2) the positive influence of peer mentoring during rehabilitation; (3) social and familial support increases participation in quad rugby; (4) limited access, high costs, and inequality of adaptive sports present significant barriers to participation; (5) advantages of participating in quad rugby include both physical and psychosocial benefits; and (6) motivational factors for continued involvement in quad rugby include the athlete identity, camaraderie, and advocacy for future adaptive athletes.

**CONCLUSION:** This study highlights the importance of early introduction to quad rugby after SCI and the significant biopsychosocial benefits of participation. Barriers identified in this study can be addressed by occupational therapists (OTs) through innovative approaches and advocacy efforts. OTs can use these findings to educate clients with SCI on quad rugby and better facilitate awareness and support participation earlier in the rehabilitation process.

**IMPACT STATEMENT:** OTs should provide early exposure to adaptive sports, such as quad rugby, in each stage of rehabilitation and use individualized strategies to support participation for clients after SCI.

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