

THE ROLE OF PROPRIOCEPTIVE TRAINING IN REDUCING LUMBAR SPINE PROBLEMS AMONG ELITE FIGURE SKATERS

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Background and Aims

Figure skating is a physically demanding Olympic sport that requires a unique combination of artistic expression and athletic performance. The sport's growing technical complexity places increasing stress on the musculoskeletal system, particularly the lumbar spine, posing a concern for rehabilitation specialists and sports medicine professionals. This study aimed to investigate the prevalence of lower back pain among elite figure skaters and explore contributing factors related to training type, gender, discipline, and performance of specific skating elements.

Methods

A cross-sectional study was conducted with 194 competitive figure skaters: 35 male singles, 45 female singles, 56 pair skaters, and 58 ice dancers. Data were collected through structured questionnaires assessing the presence of lumbar pain in relation to on-ice and off-ice training routines and technical element execution.

Results

Lower back pain was reported by 33.8% of singles skaters, 41.1% of pair skaters, and 25.9% of ice dancers. A statistically significant difference ($p < 0.05$) was observed among disciplines in relation to off-ice training and performance of physically demanding lifts and spins. No significant difference was found regarding spirals and step sequences.

Conclusion

The findings underscore a notable prevalence of lumbar spine pain in figure skaters, particularly in disciplines requiring greater physical load through lifts and spins. These results highlight the need for multidisciplinary approaches in injury prevention and athlete management, including tailored rehabilitation protocols, biomechanical assessments, and modifications to training intensity. Early intervention strategies and collaboration between coaches, physical medicine specialists, and physiotherapists are essential to preserve spinal health and athletic longevity.

Keywords: figure skating, injury prevention, rehabilitation