

"Do treatments provided at the point-of-care influence patient outcomes after acute lateral ankle sprain? A study from the Athletic Training Practice-Based Research Network"

PRACTICAL SIGNIFICANCE

Patients experiencing clinically meaningful deficits in self-report of function at return-to-play following a lateral ankle injury received fewer treatments (services, visits, duration) than those patients who reported little to no functional deficits.

STUDY BACKGROUND

Lateral ankle sprains (LAS) are the most frequently reported injuries occurring during physical activity and athletic participation. Although LAS injuries are associated with a relatively short recovery time, they often result in long-term consequences which include lingering impairment- based symptoms (eg, pain, swelling, instability), decreased function, and decreased health-related quality of life. Despite the frequency and the known long-term consequences of LAS injuries, little is known about the effect of treatment strategies on clinical outcomes following a LAS injury, particularly on patient-reported outcomes.

OBJECTIVE

To determine if treatment characteristics differed based on self-reported function at return-to-play after an ankle sprain.

DESIGN & STUDY

Retrospective analysis of electronic patient records from the Athletic Training Practice-Based Research Network.

SUBJECTS

Patient cases with a documented ankle sprain injury and Global Rating of Function scale (GROF) score at return-to-play.

MEASUREMENTS

The GROF is single-item patient-reported outcome measure scored on a 0- 100% scale, with higher scores indicating better function. Patient cases were grouped based on a GROF cutoff

score of 90% (>90%= HIGH-FUNC, <90%=LOW-FUNC), a clinically meaningful threshold reported in ankle research.

RESULTS

We investigated 158 patient cases (HIGH-FUNC=75, LOW-FUNC=83). Injuries occurred most frequently in basketball (27.8%, n=44), football (27.8%, n=44), and soccer (19.6%, n=31). A total of 1257 services were recorded, with AT evaluation/re-evaluation (23.2%, n=291), hot/cold pack (20%, n=251), therapeutic exercise (18.1%, n=228), and strapping (13.8%, n=174) used most frequently. The HIGH-FUNC group received significantly greater number of services ($p=.002$), greater number of visits ($p=.001$), and longer duration of care ($p=.002$) than the LOW-FUNC group.

CONCLUSIONS

Our findings suggest treatment characteristics including the number of services, number of visits, and duration of care may influence a patient's perception of their overall function when returning to play.

NATA FOUNDATION OUTCOMES RESEARCH GRANT: 2016-2022

FUNDING: \$105,225



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Kenny Lam, ScD, ATC, is a professor of clinical research within the Department of Interdisciplinary Health Sciences at A.T. Still University (ATSU). He received a bachelor of science in athletic training and a master of education in human movement from Boston University. He also completed his doctor of science degree from Boston University with a focus on movement sciences. Prior to becoming a faculty member at ATSU, Dr. Lam completed a Post-Doctoral Research Fellowship within the Center of Clinical Outcomes Studies at ATSU with a focus on patient-oriented outcomes research. His current line of research seeks to understand the overall impact of sport-related lower extremity injuries on patient-oriented outcomes such as health-related quality of life. In addition to his faculty responsibilities, Dr. Lam serves as the director of the Athletic Training Practice-Based Research Network (AT-PBRN) and as the vice chair of the Institutional Review Board at ATSU - Mesa campus. He also serves as a member of the Research Committee for the NATA Foundation, a member of the Athletic Training Research Committee of the NATA Foundation, the Chair of the Free Communications Committee for the Rocky Mountain Athletic Trainers' Association, and an editorial board member for the Journal of Athletic Training and Journal of Sport Rehabilitation. Prior to earning his doctorate, Dr. Lam practiced as a certified athletic trainer at Boston University, Rutgers University - New Brunswick, and the Massachusetts Institute of Technology.