
ORIGINAL RESEARCH

A DELPHI STUDY OF RISK FACTORS FOR ACHILLES TENDINOPATHY- OPINIONS OF WORLD TENDON EXPERTS

Seth O'Neill, MSc, BSc, PGCE HE, MSCP, MACP¹

Paul J. Watson, PhD, PGCE HE, FCSP²

Simon Barry, PhD, PGCE HE, MSCP¹

ABSTRACT

Background and Purpose: Achilles tendinopathy can be a debilitating chronic condition for both active and inactive individuals. The identification of risk factors is important both in preventing but also treating tendinopathy, many factors have been proposed but there is a lack of primary epidemiological data. The purpose of this study was to develop a statement of expert consensus on risk factors for Achilles tendinopathy in active and sedentary patient populations to inform a primary epidemiological study.

Study design: Delphi study

Methods and Measures: An online Delphi study was completed inviting participation from world tendon experts. The consensus was developed using three rounds of the Delphi technique. The first round developed a complete list of potential risk factors, the second round refined this list but also separated the factors into two population groups – active/athletic and inactive/sedentary. The third round ranked this list in order of perceived importance.

Results: Forty-four experts were invited to participate, 16 participated in the first round (response rate 40%) and two dropped out in the second round (resulting in a response rate of 35%). A total of 27 intrinsic and eight extrinsic risk factors were identified during round one. During round two only 12 intrinsic and five extrinsic risk factors were identified as important in active/athletic tendinopathy while 14 intrinsic and three extrinsic factors were identified as important for inactive/sedentary tendinopathy.

Conclusions: Risk factors for Achilles tendinopathy were identified based on expert consensus, and these factors provide a basis for primary epidemiological studies. Plantarflexor strength was identified as the primary modifiable factor in the active/athletic group while systemic factors were identified as important in the inactive/sedentary group, many of the potential factors suggested for either group were non-modifiable. Non-modifiable factors include: previous tendinopathy, previous injury, advancing age, sex, steroid exposure, and antibiotic treatment.

Level of evidence: Level V

Key words: Achilles tendinopathy, Delphi study, risk factors

CORRESPONDING AUTHOR

Seth O'Neill, MSc, BSc, PGCE HE, MSCP,
MACP

Physiotherapy Lecturer

Department of Medical and Social Care
Education

Maurice Shock Medical Sciences Building
G77, University of Leicester

PO Box 138, LE1 9HN

Tel 0116 252 3305

E-mail so59@le.ac.uk

¹ University of Leicester, Leicester, UK

² Coventry University, Coventry, UK