

were systematically searched using the following key themes: 'femoroacetabular impingement', 'work' and 'risk'. Key findings from the included studies were extracted, including risk factors, prevalence or incidence and risk ratios (e.g., relative risk, hazard ratios, and incidence rate ratios). Included studies were critically appraised using the Joanna Briggs Institute tools.

Results: Six studies met the eligibility criteria, with the average methodological quality generally indicating 'good' quality overall. The findings from this review indicate that FAI is more prevalent in occupations involving high physical activity, such as professional soccer and hockey players and military personnel compared to the general population. While specific occupational tasks were not highlighted in the included studies, the occupational demands described for each occupation suggest that occupations involving repetitive hip flexion (e.g., kicking and squatting) and sustained positions in extreme hip joint ranges were associated with FAI. Occupations where these loads are, or have been, experienced prior to skeletal maturity (e.g., professional, or elite athletes) and workers with a history of high-level sport or physical activity participation (e.g., military personnel) are at higher risk of developing FAI. The review also found military personnel with FAI were observed to have lower hip joint space measurements when compared to civilians with FAI, and this may further compound the development of FAI in military personnel by bringing the bone structures within the joint closer together and so making impingement more likely.

Discussion: The findings of this systematic review found occupations where individuals are constantly exposed to high-intensity and high-impact physical activity as well as repetitive and supra-physiologic hip loading conditions are more prone to developing FAI. However, the studies identified in this review unfortunately did not contribute to elucidating which specific occupational tasks, at which frequencies and durations, would increase the likelihood of developing FAI, particularly in physically demanding occupations.

Impact: Professional athletes and military personnel are at a higher risk of developing FAI. As FAI is a precursor for hip osteoarthritis, specific risk factors for FAI need to be more accurately identified and managed to reduce the incidence of FAI in these populations.

My co-authors and I acknowledge we have no conflict of interest.

<http://dx.doi.org/10.1016/j.jsams.2022.09.146>

(P100101)

A snapshot of content delivery in Australian Exercise and Sport Science undergraduate programs

A. Kittel^a, M. Spittle^a, C. Stevens^b, S. Spittle^c

^aInstitute for Health and Sport, Victoria University, Australia

^bFaculty of Health, Southern Cross University, Australia

^cCollege of Sport and Exercise Science, Victoria University, Australia

Introduction: Exercise and Sport Science (ESS) is a multidisciplinary field, with undergraduate degrees offered at most Universities in Australia. No previous studies have explored the content of the curriculum across Australian undergraduate ESS courses, and this is important to understand as these programs respond to and shape industry trends and directions and aim to prepare graduates with broad knowledge and skills to equip them for professional work in the field or to pursue further study (e.g. postgraduate). The aim of this project is to provide a snapshot of the range of units offered in Australian ESS courses, to conceptualise the broad content that encompasses the study of ESS and the preparation of graduates in the field.

Methods: Data for this exploratory study was gathered through publicly available University course material, with 31 ESS courses included. Authors independently reviewed the description and learning outcomes of each unit of study, and grouped them according to commonalities. Only core units were included in this study (i.e., elective choices were excluded). Descriptive statistics were used to compare frequency of units across the Australian ESS programs.

Results: 65 distinct core units were identified following analysis. The 10 most common units delivered across Australian ESS programs (in order) were Biomechanics (100% of courses offered this unit), Exercise Physiology (100%), Exercise Prescription and Delivery (90%), Research Methods and Data Analysis (90%), Exercise and Sport Psychology (87%), Functional Anatomy (84%), Advanced Exercise Physiology (77%), Motor Control and Learning (71%), Advanced Biomechanics (68%), Physical Activity and Exercise for Health (68%). 55% of EXSS courses offer a Career Development unit that involves placement plus career preparation classes, and 39% of courses offer a Strength and Conditioning Unit. Sports Medicine and Injury Prevention was offered in 35% of courses.

Discussion: Australian ESS programs appear to have a strong focus on exercise-related components, which may reflect current accreditation requirements for exercise science. This shift is reflected as exercise-related courses such as Biomechanics, Exercise Physiology, Exercise Prescription and Delivery are offered more frequently than sports-focused units such as Strength and Conditioning or Sports Medicine. The literature suggests a key focus on developing soft skills (e.g., interpersonal), and ability to translate scientific knowledge to key stakeholders such as coaches to be vital for ESS practitioners, suggesting that course developers may consider offering more units such as Career Development.

Impact and application to the field: This project provides a summarised snapshot of the range of content offered across Australian ESS programs, providing a picture of what ESS is conceptualised of as in academic contexts and the content that is shaping the graduates from ESS courses and thus the profession. This knowledge helps recognise the content provided in Australian Universities, allowing future research to analyse whether these content areas and how they match professional and further study requirements. Further, this will allow academics to understand how ESS courses change in the future.

My co-authors and I acknowledge we have no conflict of interest.

<http://dx.doi.org/10.1016/j.jsams.2022.09.147>

(P100107)

Macro periodisation of competition in international women's tennis: a long-term athlete development perspective

T. Perri^a, R. Duffield^a, A. Murphy^b, T. Mabon^b, M. Reid^b

^aUniversity of Technology Sydney, Australia

^bTennis Australia, Australia

Introduction: Competition profiles of future successful female tennis players are limited to anecdotal evidence and case reports. Consequently, Federations are challenged in providing empirically supported recommendations to players that align with previous research on ranking trajectories that distinguish future top 100 (T100) players. Accordingly, this study differentiated the international competition engagement of elite (T100 and top 250 [T250]) female tennis players during their youth (13-18y).

Methods: Historical tournament data was analysed for 258 female players from their international age of eligibility. Players were categorised into groups based on peak professional ranking of