

Results: Face validity was acceptable and pilot testing identified minor accuracy issues that were corrected. Literacy level was rated as 'difficult to read' which reflects the medical terminology within the questionnaire. Internal consistency was very good and 81% of questions demonstrated acceptable predictive validity. Health literacy was heterogeneous depending on the question with less than 40% of respondents answering correctly for questions related to the indications, process, and the known benefits of RCRSP surgery.

Discussion: The PKQ-RCRSP demonstrated acceptable face validity, predictive validity and reliability (internal consistency) in assessing RCRSP health literacy. Health literacy among our small sample was poor for questions related to surgery for RCRSP. Our findings suggest that these aspects of RCRSP knowledge are not intuitive and may require specific education so that people avoid potentially unnecessary surgery.

Conflict of interest statement: My co-authors and I acknowledge that we have no conflict of interest of relevance to the submission of this abstract.

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Are physical activity or body mass index associated with subsequent knee injuries in young female athletes?

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Introduction: Anterior cruciate ligament (ACL) injuries are devastating for young, active individuals, with up to 50% developing osteoarthritis (OA) before aged 40 years. Subsequent knee injury rates are high and lead to even poorer long-term joint health. At 2-3 years after ACL reconstruction (ACLR), the relationships between known modifiable OA risk factors [e.g. moderate and vigorous physical activity (MVPA), body mass index (BMI)] and subsequent knee injury is unknown. The objective of this study was to determine the odds of subsequent (new or recurrent) traumatic knee injury in a cohort of young females with ACLR 2-3 years post-surgery compared with healthy matched-controls. Secondary objectives were to (i) explore the relationships of MVPA and BMI with traumatic knee injury; (ii) document self-reported MVPA satisfaction and beliefs about future OA.

Methods: Fifty-one females (aged 14-22 years) with prior (1-2 years) sport-related unilateral ACLR and 51 age-and-sport-matched controls underwent assessment of MVPA (GT3X accelerometers) and BMI. One year later, participants self-reported subsequent (new or recurrent knee injuries), return to sport, MVPA satisfaction, and beliefs about OA risk. Bivariable conditional logistic regression explored the association of knee injury with (i) group (injury/control), (ii) MVPA and

(iii) BMI. Beliefs about MVPA satisfaction and OA risk was reported descriptively.

Results: At 1 year follow-up (n=101), 19.6% of injured cohort and 6.0% of control participants sustained subsequent knee injuries. The odds of traumatic knee injury for the injury group increased 7-fold over controls [OR=7.00 (95% CI=0.86,56.90)]. Odds ratios (OR) for MVPA and BMI were 0.98 (95%CI= 0.93,1.03) and 1.24 (95%CI=0.85,1.82) respectively. Just over half (55%) of injury participants and 66% of controls were satisfied with their MVPA, while 82% of injury participants believed they had increased knee OA risk compared to someone who had never had a knee injury.

Discussion: In the 2-3 years following ACLR, one in five young females had a subsequent traumatic knee injury. Based on the point estimate, injured participants were more likely to suffer a traumatic knee injury than matched controls. BMI was not associated with increased odds of a subsequent traumatic knee injury. Given participation in MVPA did not increase odds of knee injury and the high level of dissatisfaction with MVPA reported in this cohort, in-depth conversations between clinicians and patients who have had ACLR regarding enjoyable and sustainable MVPA participation are encouraged to promote long term joint health.

Conflict of interest statement: We acknowledge no conflict of interest of relevance to the submission of this abstract.

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Characterising Anterior Cruciate Ligament (ACL) Injury Situations in the Women's Australian Football League (AFLW)

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Background: An early trend from the Women's Australian Football League (AFLW) is the high rate of anterior cruciate ligament (ACL) injuries. AFLW players are up to nine times more likely to suffer an ACL injury compared to male Australian Football League players. Considering the significant short- and long- term consequences following ACL injuries the alarming rate of these injuries must be addressed in the AFLW. Understanding injuries within their sporting context is important to develop effective injury prevention strategies, yet there is currently little knowledge of how ACL injuries occur to AFLW players. This study determined the common scenarios and characteristics of ACL injuries in the AFLW.

Methods: A video analysis of 21 ACL injuries from the 2017 to 2020 AFLW seasons was performed. The analysis examined the match situation, and the player's movements and body postures surrounding the injury. The frequency (i.e.n) and relative proportions (i.e.%) were determined for each characteristic. Relative odds (RO) were calculated to determine the relative probabilities of ACL injuries occurring with specific characteristics.

Results: Non-contact ACL injuries were frequently observed (n=13, 61.9%). The most common match situation was direct defence (i.e. defending an opponent in possession) (n=14, 66.7%). Sidestep cutting was the most common manoeuvre (n=11, 52.4%), with this commonly paired with applying defensive pressure (n=6 of 11, 54.6%). An extended knee (n=18, 85.7%) and valgus collapse (n=17, 81.0%) were present in nearly all injuries. ACL injuries were more likely to occur with a unilateral compared to bilateral asymmetric landing (RO=5.3 [1.7, 12.9 95% CI's] and a rear- compared to a mid- or fore-foot footfall (RO=4.5 [1.4, 10.9 95% CI's]; RO=8.52 [1.80, 23.60 95% CI's]).

Discussion: Sidestep cutting manoeuvres when applying defensive pressure was the most common ACL injury scenario observed. Consistent with existing research, an extended knee and valgus collapse were