Reviewer's report

Title: Perceived Personal Importance of Exercise and Fears of Re-injury: A Longitudinal Study of Psychological Factors Related to Activity after Anterior Cruciate Ligament Reconstruction

Version: 1
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Reviewer: Britton W Brewer

Reviewer's report:

This manuscript presents an empirical study in which predictors of physical activity after ACL surgery were examined. The manuscript is an interesting, well-written account of the study and its implications. The sample size and longitudinal research design are obvious strengths of the study. The manuscript is clearly and concisely written. Information gleaned from the manuscript is likely to prove to be of utility to researchers of this topic.

Major Compulsory Revisions

1. Personal importance of exercise seems to be a reasonable choice for a predictor variable for the walking, household, and lower risk of knee injury physical activity criterion variables. It is, however, unclear why personal importance of sport was not selected as a predictor of higher risk of knee injury physical activity. As noted in the first paragraph of the Results section, a large portion of the ACL injuries were sustained in sport activities rather than recreational activities. Participants’ personal importance of exercise probably did not decline over the course of study because the importance of exercise (like good nutrition and other key health behaviors) across the lifespan is widely recognized. Research has shown that personal importance of sport (in the form of athletic identity, just as exercise identity was used to assess personal importance of exercise) tends to decrease over the first two years after ACL surgery, with greater changes occurring among individuals who displayed low levels of progress in rehabilitation (Brewer et al., 2010). Documentation of such changes might have had predictive value (for higher risk of knee injury physical activity) in the current study. This issue warrants consideration in the manuscript.


2. It is unclear why continuous variables (i.e., fear of re-injury, personal importance of exercise) were converted into categorical variables to predict physical activity in year 3. The findings of the analyses corresponding to Table 4 could be presented more parsimoniously (and with no loss of information due to categorizing the continuous variables) in the form of a multiple regression analysis with inclusion of the appropriate interaction term.
3. Given the centrality of physical activity to the study, information pertaining to the validity of the MLPAQ should be provided in the Measures section.

Minor Essential Revisions

None

Discretionary Revisions

4. Given the limitations of single-item scales, it might be helpful to note that multi-item scales such as the recently developed Re-Injury Anxiety Inventory (Walker et al., 2010) can be used in future research to assess fear of re-injury.


Minor Issues Not For Publication

None

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.