

# No Difference in Kinesiophobia in Individuals With Contact or Non-Contact Mechanisms of ACL Injury

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## CONTEXT

- Anterior cruciate ligament (ACL) injuries often occur in physically active populations and result in poor psychological responses, like kinesiophobia.
- ACL injuries can occur from contact or non-contact mechanisms.
- Kinesiophobia (i.e. fear of reinjury, pain, and/or movement), are a common barrier to return to activity after ACL reconstruction (ACLR)

## PURPOSE

To examine differences in kinesiophobia between mechanisms of primary ACL injury in individuals after ACLR.

## METHODS

- Twelve participants with a history of primary, unilateral ACLR were separated into two groups: contact and non-contact mechanisms of ACL injury.
- All participants completed the Tampa Scale of Kinesiphobia-11 (TSK-11) which is a questionnaire used to assess kinesiophobia. There are 11 questions and scores range from 11 to 44. Higher TSK-11 scores indicate elevated kinesiophobia.
- Mann-Whitney U tests were performed ( $p < 0.05$ ) to examine differences in kinesiophobia between mechanism of injury.

## RESULTS

Figure 1. displays the distribution of TSK-11 scores based on the mechanism of injury. There were no differences in TSK-11 scores between contact ( $17.1 \pm 5.0$ ) and non-contact ( $18.6 \pm 4.7$ ) individuals ( $p=0.6240$ ).

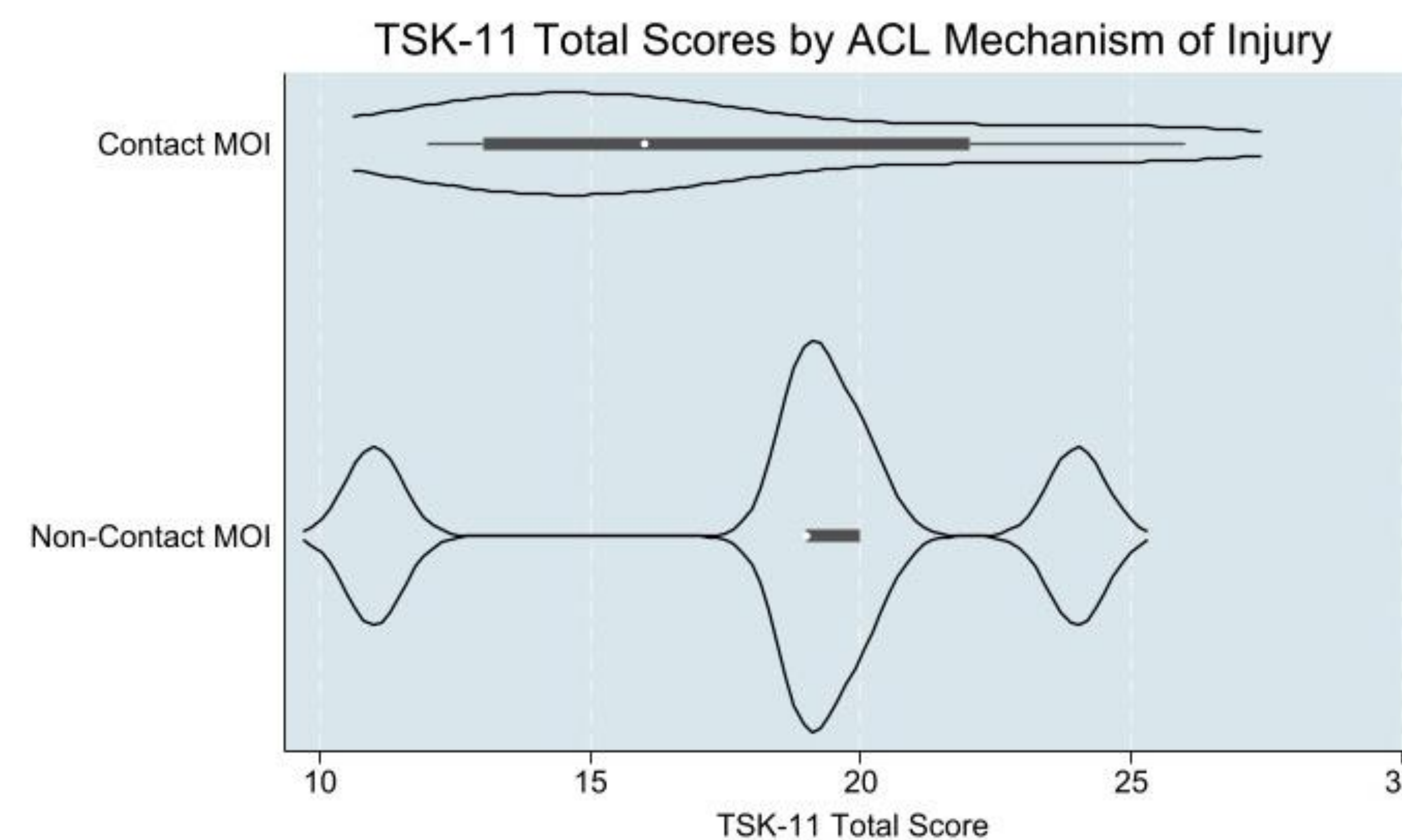


Table 1. Demographics

	Contact (N= 7)	Non-Contact (N= 5)	Overall (N= 12)
TSK-11 Score	17.1 (5.0)	18.6 (4.7)	17.8 (4.8)
Time Since Surgery, mo	14.9 (9.2)	32.0 (17.3)	22.1 (15.3)
Age, years	19.5 (9.5)	23.9 (5.8)	21.4 (8.2)
Height, cm	166.6 (8.4)	166.1 (6.4)	166.4 (7.3)
Weight, kg	73.4 (22.6)	67.3 (8.3)	71.4 (17.8)

Descriptive statistics displayed as mean (SD)

## DISCUSSION

- There were not differences in kinesiophobia between individuals who have sustained contact and non-contact ACL injuries.
- This may be because questions in the TSK-11 do not address the mechanism of injury directly or the experience of the injury overall.
- Our sample demonstrated elevated kinesiophobia, despite being nearly two years from ACLR.
- Future work should consider additional psychological responses, like psychological readiness, and use a larger sample.

## REFERENCES

Paterno MV, Flynn K, Thomas S, Schmitt LC. Self-Reported Fear Predicts Functional Performance and Second ACL Injury After ACL Reconstruction and Return to Sport: A Pilot Study. Sports Health. 2018 May/Jun.

Boden BP, Griffin LY, Garrett Jr WE. Etiology and prevention of noncontact ACL injury. The Physician and sportsmedicine. 2000 Apr 1;28(4):53-60.

Clinicians should assess psychological responses in all individuals after ACLR.



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