Context: The purpose of this study is to investigate the relationship between kinesiophobia and isokinetic knee extension and flexion torque in individuals 4-9 months after ACLR.

Methods: Seventeen participants with a history of ACLR were included (11 females age=18.6±4.0 years, height=168.8±6.8 cm, weight=71.6±12.5 kg, time since surgery=6.5±0.9 months). Participants were included if they sustained a primary, unilateral ACL injury during sports or activity. Participants completed the Tampa Scale of Kinesiophobia-11 (TSK-11) and a standardized isokinetic knee extension and flexion strength assessment. The TSK-11 is a reliable and valid questionnaire used to assess kinesiophobia. Higher TSK-11 scores indicate worse kinesiophobia. Bilateral isokinetic knee extension and flexion torque was assessed at 60°/sec (Nm/s). Torque data were normalized to bodyweight (Nm/kg/s). Higher torques reflect increased physical function. Four separate regression models were conducted with isokinetic knee torque as the dependent variable and TSK-11 as a predictor variable. Alpha was set *a priori* to $p<0.05$.

Results: The regression model for isokinetic knee flexion torque was significant ($p=0.0291$). For every point increase on the TSK-11, isokinetic flexion torque improved by 0.03. No other models were significant.

Conclusion: Increases in TSK-11 scores were associated with an improvement in isokinetic knee flexion torque on the ACLR limb. Both psychological and physical factors have been shown to impact rate of RTS in patients after ACLR. Healthcare practitioners should adopt a biopsychosocial approach when managing patients throughout ACLR rehabilitation. Future research should examine the relationship between kinesiophobia and other physical function assessments or dynamic movements.