

93 The Effects of Kinesiophobia on Outcome following Total Knee Replacement: A Systematic Review

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Aim: Kinesiophobia, the fear of physical movement and activity related to injury vulnerability, has been linked to sub-optimal outcomes following total knee replacement (TKR). This systematic review has two aims: to define the relationship between kinesiophobia and functional outcomes, pain and range of motion following TKR, and to evaluate published treatments for kinesiophobia following TKR.

Method: A primary search was performed in March 2020. English-language studies recruiting adult primary TKR patients, using the Tampa Scale of Kinesiophobia (TSK) were included. Study quality was assessed using the Newcastle Ottawa Scale for cohort or case control studies, and the Cochrane Collaboration Risk of Bias tool for randomised controlled trials.

Results: All thirteen included papers (82 identified) showed adequately low risk of methodological bias. TSK1 (activity avoidance) correlated with WOMAC functional score at 12 months in three studies ($r = 0.20$ $p < 0.05$, $R = 0.317$ $p = 0.001$, and correlation coefficient 0.197 $p = 0.005$). TSK score significantly correlated with mean active range of motion (ROM) at six months (105.33 (SD = 12.34) vs 85.53 (SD = 14.77) $p = 0.000$) post-operation. Three post-operative interventions improved TSK score vs control following TKR: a home-based functional exercise programme (TSK -14.30 (SD = 0.80) vs -2.10 (SD = 0.80) $p < 0.001$), an outpatient CBT programme (TSK 27.76 (SD = 4.56) vs 36.54 (SD = 3.58), and video-based psychological treatment (TSK 24 (SD = 5) vs 29 (SD = 5) $p < 0.01$).

Conclusions: Kinesiophobia negatively affects functional outcomes up until one year post-operatively, while active ROM is reduced up to six months post procedure. Post-operative functional and psychological interventions can improve kinesiophobia following TKR.