Fear of movement/(re)injury in chronic pain: Preliminary validation of a German version of the TSK Scale for Kinesiophobia

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Introduction
Fear of movement/(re)injury has been confirmed as an important predictor for the persistence of pain and disability. The Tampa Scale of Kinesiophobia (TSK) is one of the most frequently used measures for assessing fear of pain. The aims of this study were to evaluate the psychometric properties of a German version of the TSK, to examine the use of the inverse items, and to confirm the role of kinesiophobia as a predictor of disability.

Sample
191 patients with chronic low back pain; 55% were female; mean age was 50.1 years (SD = 11.3); mean duration of actual pain complaints was 6.2 years (SD = 8.5).

Measures
A German version of the TSK (TSK-DE) was created via forward-backward translation of the original 17 TSK-items.

Statistical Analysis
The Factor structure of the TSK-DE was assessed using Principal Components Analysis with oblique rotation (Promax). Parallel analysis was used to decide on the number of factors to retain. Internal consistencies of the TSK-DE and its subscales were determined using Cronbach’s Alpha. Product Moment Correlations were calculated to evaluate convergent and discriminant validity. Multiple regression analyses examined the role of the TSK-DE as a predictor of pain-related disability.

Results
Role of inverse items
Factor 2 is composed of only inverse items. There was no significant difference between the inverse and the other items with respect to item difficulties (t = -1.47, df = 188, p = 0.14). All inverse items depict the benefit or harmlessness of activity despite pain.

Reliability and intercorrelations of TSK-DE and subscales
The Factor structure of the TSK-DE was assessed using Principal Analysis.

Validity of TSK-DE and subscales

Conclusions
The German version of the TSK has been shown to be a sufficiently reliable and valid measure for the assessment of fear of movement/(re)injury. In the present study the inverse items were not eliminated, but interpreted with regard to contents. Our results indicate that the extraction of only inverse items for the second factor might not be related to a methodological problem. Importantly, the role of kinesiophobia as a significant predictor of pain-related disability was confirmed. The TSK explained unique disability variance, even when the influence of age, gender, pain intensity and pain duration was statistically removed.

Literature:
3. Ruhr-University Bochum, Dept. of Medical Psychology and Medical Sociology, Germany.