

Associations between knee pain and knee-loading activities at work and leisure – a cross-sectional study

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Background

Physical activity (PA) is the recommended treatment in knee osteoarthritis (KOA). Despite the benefits of PA, the risk of developing KOA is higher among workers in occupations with knee-loading activities. More knowledge on the relationship between knee pain and knee-loading activities at work and leisure is needed.

Aim

The aim was to investigate associations between knee pain, and accelerometer-measured knee-loading activities at work and leisure.

Methods

Included 107 (working) participants aged 30-67 with knee pain and no cruciate injury. The KOOS subscale Pain were assessed, and physical effort at work was rated. Measurements of knee-loading activities, and sitting/lying were made with an accelerometer for one week (1). Associations were analysed with linear regression. Subgroup analyses were performed, stratified by self-reported (high/low) physical effort at work.

Results

More knee pain were associated with fewer daily steps (all day, and during leisure) and less time in upright position (all day, and during leisure) (Table 1). In the subgroup analysis for both high and low effort at work more knee pain were also associated with less time in upright position. Associations were found for the high effort group between more knee pain and more time in sitting/lying (Table 1).

Conclusions

Individuals who had more knee pain were less physically active during leisure. Associations were stronger among participants with higher physical effort at work. This highlights the importance of assessing knee-loading activities at work and leisure when considering exercise regimes for patients with knee pain.

References

1. Skotte J. 2014