The thesis is about a one year follow-up ergonomic intervention study on the improvement of low back disorders, perceived health status and overall working ability, among various kitchen institutions in Finland, with the ultimate aim of meeting the requirements of workers’ capabilities by addressing their issues and the working environment; the match between personnel and equipments usage, work processes and environment. LBP is a typical MSD which may be characterised by periodic and protracted pains, stresses and strains around the low back often as a result of fitting workers in working environments whose design falls short of targeted ergonomic standards. Effective ergonomic changes can be attained by means of technical, administrative and socioeconomic procedures. Workers involvement in the planning and implementation of possible changes effects ergonomic efficiency. Individual physical attributes and habits ought to be taken into consideration to better understand and assess the effect of ergonomic intervention programs. Effective ergonomic approach is realised through a reduction in MSD (eg. LBP) cases and associated pain reduction, minimal absenteeism, perceived health improvement and hence, improved work ability.

Linear mixed models was the main statistical analyses employed in modelling the mean changes in low back pain, as well as accounting for the covariances in the repeated measures. The statistical results revealed that, generally, there was an improvement in low back pain, reduced LBP sick leaves, among the intervention group compared to that of the control group. These differences, however, were often not, statistically, significant. Further, the intervention group excelled in their respective perception of health (in terms of aspects of quality of life).

It is recommended that work organization be improved in the direction of elevated levels of WPFs, which are keys to job satisfaction and LBP recovery. Larger sample size is required in guaranteeing further and detailed analyses to deepen our understanding and appreciation of the interrelationships among many underlying constructs associated with MSDs, and their progression, for the effective evaluation of intervention program.

**Avainsanat-Nyckelord:**
- Low back pain
- Perceived health status
- Work ability
- Ergonomic intervention
- Linear mixed models
- selkäsairaudet
- työkyky
- työterveys
- ergonomia
- keittiöapulaiset
- lineaariset mallit

**Säilytyspaikka-Förvaringsställe:**
Where deposited

**Muita tietoja-Övriga uppgifter:**
Additional information