



THE SELECTED ABSTRACTS

23rd Conference on Epidemiology in Occupational Health

EPICOH 2.0.13: IMPROVING THE IMPACT

268 Improving the individual work performance questionnaire using rasch analysis

L. Koopmans¹, Bernaards², Hildebrandt², van Buuren², van der Beek³, de Vet³

¹Body@Work, TNO/VUmc, Leiden, Nederland

²TNO, Leiden, The Netherlands

³VU University Medical Center, Amsterdam, The Netherlands

Session: G. Hazard Identification (Psycho Social)

Session Date: 19/06/2013

Presentation Time: 13:30 - 15:00

Abstract

Objectives:

Recently, the Individual Work Performance Questionnaire (IWPQ) version 0.2 was developed. One of its main purposes is to detect changes in individual work performance, for example in worksite health promotion interventions. The IWPQ is a generic instrument, i.e. suitable for blue, pink, and white collar workers, that was constructed using Rasch analysis. The IWP consists of three short scales (task performance, contextual performance, and counterproductive work behavior). However, it appeared that there were insufficient difficult items for the task and contextual performance scales, and insufficient easy items for the counterproductive work behavior scale. Thus, targeting was suboptimal. The goal of the current study was to improve targeting of the IWPQ.

Methods:

It was hypothesized that improved targeting could be achieved by formulating additional items that cover the locations of the scales where there were an insufficient number of items. The IWPQ version 0.3 (including additionally formulated items) was tested in a sample of 1,424 Dutch blue, pink, and white collar workers. The IWPQ 0.2 and 0.3 were compared on model fit, targeting, and reliability.

Results:

Additionally formulated items that showed misfit or did not improve targeting were removed from the IWPQ 0.3, resulting in a final IWPQ 1.0. The scales of the IWPQ 1.0 showed good model fit and reliability, and satisfied key measurement assumptions. Targeting improved for two out of three scales. Finally, calculation and interpretability of scores were addressed.

Conclusion:

Compared to its previous version, the final IWPQ 1.0 showed improved targeting for two out of three scales. As a result, it can more reliably measure workers at all levels of ability, discriminate between workers at a wider range on each scale, and detect changes in IWP. In conclusion, the IWPQ seems to be a suitable instrument to study IWP in occupational epidemiology.