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Pain level as a predictor of return to work

Dear Editor,

In a interesting recent report in your journal [3], Kool et al. attempted to predict return to work in a group of patients with chronic low back pain (LBP) in a prospective study design. They found through regression analysis that behavioral signs (Waddell signs), the Step Test, the pseudo strength test and pain levels of 9 or 10 on a 10-point visual analog scale (VAS) were significantly associated with non-return to work. It is interesting to note that VAS pain levels of 9 or 10 had the best positive predictive value and specificity for non-return to work after 1 year [3].

I would like to make the readership familiar with previous literature that has also demonstrated the importance of pain levels in predicting return/non-return to work. In an early work, Fishbain et al. [1] developed a functional capacity battery that was based on the *Dictionary of*

Occupational Titles job factors. The dictionary classifies each job in the US according to 20 job factors such as lifting, balancing, etc. This study noted that the vast majority of chronic LBP patients could not pass the full battery. Fishbain et al. [2] subsequently went on to test the validity of the battery for predicting return/non-return to work in chronic LBP patients going through a pain facility rehabilitation program. They found the following by discriminant analyses:

1. Eight job factors such as lifting and balancing plus workers' compensation status plus pain level predicted return/non-return to work.
2. If a chronic LBP patient could perform these job factors and had a pain level of less than 5.4 on a 10-point scale he/she had a 75% chance of returning to work at 30 months following treatment completion.
3. Return to work could not be predicted without utilizing pain levels.

The findings from this study [2] impact on the Kool et al. study [3] in the following manner:

1. It is very likely that in Kool and co-workers' patient group there will have been a statistical relationship between pain level and

return to work (the higher the pain level the less likely the return to work).

2. In choosing 9 or 10 as the pain level, Kool et al. probably selected chronic LBP patients who had zero chance of returning to work.
3. Kool and co-workers' choice of testing the 9 or 10 pain level for non-return to work is in keeping with the concept that such a pain level could be a behavior sign. As the above-mentioned study [2] indicates, however, any level of pain above 5.4 on a 10-point VAS scale can keep a chronic LBP patient from returning to work.

References

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3. Kool JP, Oesch PR, de Bie RA (2000) Predictive tests for non-return to work in patients with chronic low back pain. Eur Spine J 11:258–256

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