Was Predictive Validity of a Job-Specific FCE Established?
Reneman, Michiel; Soer, R.

Published in:
Journal of Occupational and Environmental Medicine

DOI:
10.1097/JOM.0b013e3181fd32fe

IMPORTANT NOTE: You are advised to consult the publisher’s version (publisher’s PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2010

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):

Copyright
Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.
LETTERS TO THE EDITOR

Was Predictive Validity of a Job-Specific FCE Established?

To the Editor:


Cheng and Cheng1 made a tremendous effort in their study into the predictive validity of job-specific functional capacity evaluation (FCE) on the employment status of patients with nonspecific low back pain. They report on a large retrospective cohort study in which patients with low back pain (n = 645) who have performed an FCE were provided with recommendations regarding return to work (RTW) and were followed up 3 months later to inform on actual work status. The authors concluded, “Job-specific FCE shows a high level of predictive validity based on high agreement between recommendations and work status. . . .” Nevertheless, in our opinion, there are some concerns about this article that we would like to share with you.

Our first concern is similar to the comments that were expressed2 in a similar study3 published in a different journal. The authors claim evidence for predictive validity of FCE; however, we do not know whether the relationship between FCE and work status at follow-up could be attributed to the FCE results or to the recommendations provided to them. The conclusion of the study might as well be that most patients followed the recommendations given to them (patients were not blinded to the recommendations). It remains unclear whether the recommendations were appropriate and what was the contributing role of FCE. It appears that RTW recommendations were not based on FCE alone. For example, as shown in Table 3, 74 patients who passed the FCE were given recommendations to RTW with modifications and 2 patients were recommended to not work at all at the moment. Should not all patients with a pass rating be given a recommendation to RTW to previous job if FCE was the only source of information on which RTW recommendations were based?

Second, the authors have not reflected on the issue of underrecommendations based on the FCE results. As in any capacity test, the results of the FCE are, by definition, influenced by multiple factors. (An FCE is an evaluation of capacity of activities that is used to make recommendations for participation in work while considering the person’s body functions and structures, environmental factors, personal factors, and health status.) Consequently, FCE results might reflect what a person is able and willing to do, which might be different from what this person could do in a different context. This is also shown in Table 3, where patients were recommended not to RTW to a previous job after given a fail rating A or B, yet 15 respectively 18 patients were able to RTW after 3 months. This should theoretically not be possible, because they would not have sufficient capacity to defy the workload. This might imply that performances during an FCE might provide a (temporary) underrepresentation of functional capacity or invalidity of the job-demands analysis, or both.

Third, regarding job-demands analysis, the authors have described their approach to assess the physical demands of the jobs (“Before FCE, a hierarchical task analysis, guided by the modified Dictionary of Occupational Titles Physical Demand Questionnaire, was used to discuss with the patients about the physical work demands of their work”), but they have not, however, made an effort to demonstrate the reliability and validity of this assessment, nor have they discussed the potential implication of this limitation. In addition, the authors have also not provided information about the validity of their main outcome measure—work status.

The authors have suggested that FCE should be able to predict RTW. They have not, however, indicated how predictive FCE could theoretically be, given the observation that an FCE measures capacity to execute activities, which in turn are used to make recommendations for a multidimensional construct such as work-participation; 100% predictive value should not be expected. Nevertheless, what would be reasonable to expect?

The authors conclude that their study provides evidence in support of the predictive validity of the FCE studied. In our opinion, it is still unknown whether or not this FCE has predictive validity for RTW because of the limitations expressed in this letter.

M. F. Reneman, PT, PhD
Department of Rehabilitation Medicine and Center for Rehabilitation University Medical Center Groningen University of Groningen Groningen, The Netherlands

R. Soer PT, PhD
Center for Rehabilitation and Spine Center Groningen University Medical Center Groningen University of Groningen Groningen, The Netherlands

REFERENCES


Author’s Response

To the Editor:

We thank Reneman and Soer for their interest in our article1 and for the Letter to the Editor they wrote in response to it. Their comments are pertinent, and are consistent with previous comments of theirs on a similar study. That they make these comments is understandable because they are not familiar with the work practice, the workers’ compensation system, and culture-specific factors in Hong Kong.

In Hong Kong, almost all functional capacity evaluations (FCEs) are conducted in a clinical setting. Patients are referred by their treating physicians to receive an FCE to assist them in deciding when the patient can return to work or what rehabilitation program is required. After the evaluation, an FCE report will be sent to the treating physician; therefore, patients are totally
blind to the recommendations given by therapists until they see their treating physician again. But patients can choose to follow the recommendations provided to them or not. They are not forced to return to work. Two common reasons why they might decline to follow a recommendation to return to work are: (1) they think that they are not ready to return to work, and (2) they consider that the evaluation alone cannot give them sufficient information about their work ability when they return to work. Certainly, other sociodemographic and workplace factors will affect return to work, subsequent unemployment, and the ability to perform work-related tasks.

Because of the criticism about the content validity of FCE in assessing patients’ work ability to perform specific work activities, Hong Kong occupational therapists, being the main FCE provider in Hong Kong, adhere to the guideline given by the Occupational Therapy Coordinating Committee of the Hospital Authority of Hong Kong that all FCEs should be job specific. By doing so, we optimize the content validity of the FCE to make it more convincing and acceptable to patients so as to reflect what they are capable of doing in different work contexts. Furthermore, as mentioned in our article, it is necessary to conduct an analysis of the psychosocial factors in an FCE. Therefore, Hong Kong occupational therapists adopt the psychophysical testing approach based on the concept of acceptable maximal effort. For chronic low back pain sufferers, this approach can provide reliable, reproducible data regarding a person’s tolerance of specific tasks within the bounds of acceptable pain. As a result, the job-specific FCE used in our study was not just an instrument measuring a single dimension. Rather, we measured both the physical and psychological abilities of the patient to perform specific tasks within the bounds of their physical and psychological tolerance.

Finally, regarding the comment on the reliability and validity of our study, we performed a reliability analysis of the modified Dictionary of Occupational Titles (DOT) Functional Demand Questionnaire. Previous studies have shown that the DOT Dictionary of Occupational Titles is a valid tool to assist FCE. A previous local study has also shown that this questionnaire is valid for establishing a work profile and a functional capacity of a local job title. To ensure the reliability of the identified job demands, Hong Kong occupational therapists had double-checked with patients to see if there was any disagreement about the job demands from them. This was not the only tool they used in analyzing the job demands. Reneman and Soer might have overlooked that, in our article, we mentioned that Hong Kong occupational therapists had compared the information collected from this questionnaire, as well as any comments from patients, with information in the local job bank, which was developed by them through previous interviews with patients with similar job titles and similar formal worksite evaluations. We agree with Reneman and Soer that a predictive value of 100% should not be expected from any FCE. However, we believe that our study provides important preliminary evidence that a job-specific FCE possesses the ability to predict the employment status of patients with nonspecific lower back pain.

Andy S.K. Cheng, PhD, OT
Department of Rehabilitation Sciences
The Hong Kong Polytechnic University
Hung Hom, Kowloon, Hong Kong

REFERENCES