

Criterion Problems in Rehabilitation Outcome Research: A Comment on Allison and Stephens (2004)

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Gregory C. Murphy

La Trobe University, Australia

The recent article by Allison and Stephens, 'The assessment of pain beliefs and their role in predicting recovery from repetitive strain injury', addressed an important issue for both rehabilitation counsellor practitioners as well as for rehabilitation researchers — the role of people's beliefs in influencing their behaviours and achievements while living with chronic conditions or recovering from traumatic injuries (Radnitz, 2000). Using chronic pain patients as study participants, the authors assessed pain beliefs and then correlated belief scores with three indices of 'recovery' (function improvement, pain decrease and total improvement). While the study as reported had a number of strengths, there were two aspects of the published article which concerned me as an academic who is heavily involved in teaching and conducting research in the area of understanding factors that influence rehabilitation 'recovery'. One of my concerns has to do with the design of the study, and my other concern pertains to the conclusions drawn by the authors following the analysis of the (minimal) relationships between the study's key pain and functioning constructs. Both of these concerns are elaborated upon in the following paragraphs.

My concern with the design of the study is only important because of the title of the paper and the conclusions that the low obtained correlations seemingly precipitated. The title of Allison and Stephens' paper contains the phrase '... predicting recovery ...'. Yet the criterion measures used in the study are open to extreme criticism as adequate measures of 'recovery'. Identifying appropriate criteria in applied research is rarely easy (Ronan & Prien, 1966; Smith, 1976) but ignoring traditional observable measures of rehabilitation progress (such as enhanced self management and increased assumption of normal role responsibilities) means that rehabilitation counsellors reading the article can learn little about the influence of pain beliefs on the regular behaviours of their clients.

My second concern (about the conclusions drawn from the study by the authors and the recommendations that they make for future research into injury recovery) is arguably of much more import, especially since the conclusion and recommendations appear as the last two sentences of the abstract which is likely to be often read without access to the full article. The first of the offending abstract sentences is composed as follows: 'Correlations provided little support for a relationship between the belief scores and recovery'. Given the previously discussed limitations of the criterion measures used as indices of 'recovery' among chronic pain patients, the sentence is misleading and not worded precisely enough. The second of the abstract sentences that I find problematic is this: 'This study highlights the limitations of

Address for correspondence: Gregory C. Murphy, School of Public Health, La Trobe University, Bundoora, VIC 3083, Australia. E-mail: G.Murphy@latrobe.edu.au

belief scales currently used in pain research and recommends the use of qualitative and longitudinal research'. The call by the authors to use qualitative approaches and longitudinal designs is unrelated to any reasonable interpretation of the results obtained from the study as conducted. Qualitative methodologies are important when we need to understand more about a construct, but learning about the pain experience was not the main focus of this study. It was about predicting recovery. Similarly, longitudinal studies are important in situations where (a) we believe measures at time 1 are not highly correlated with measures at time 2, and (b) different domains may need to be assessed at different points in time post injury. Given that the authors designed their study as a cross-sectional one and given that they used self-report measures of both predictor and criterion variables, what more useful data would a longitudinal version of the present study produce?

To summarise: Allison and Stephens reported on a study that addressed the important area of patient beliefs and how these might impact on recovery following injury. As with all studies, their research design had its limitations. However the two main limitations of the paper were unreported — a title that was overly ambitious and an abstract conclusion that was unjustified.

References

- Radnitz, C. (2000). *Cognitive-behaviour therapy for persons with disabilities*. London: Jason Aronsen.
- Ronan, W., & Prien, E. (1966). *Towards a criterion theory*. Greensboro, NC: The Richardson Foundation.
- Smith, P. (1976). The problem of criteria. In M. Dunnette (Ed.). *Handbook of industrial and organisational psychology* (pp. 745–775). New York: Wiley.
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