

Letter to the Editor (Authors' Response)

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Dear Dr Jacobs,

Thank you for the opportunity to respond to the concerns of Dr Reneman and colleagues about our paper, Kersnovske et al. [13]. Dr Reneman and colleagues have raised two issues that we address below.

Their first concern relates to the use of experts for the purpose of validation. We assume the authors are not concerned with the use of experts as a method of content validation, per se, as this is a well established and accepted method of content validation. As noted by Portney and Watkins [14], "the determination of content validity is essentially a subjective process" (p. 83) and "claims for content validation are made by a panel of 'experts' who review the instrumentation and determine if the questions satisfy the domain" (p. 83).

It appears the issue is more with the operational definition of the "experts" in our panel. The term of expert is used in the content validation methodology literature and can be broadly interpreted. In an earlier stage of the content validation process, we subjected the Gibson approach to functional capacity evaluation (GAPP FCE) to more detailed review by a smaller selection of experts [7], indeed, "people with outstanding knowledge and experience". For the item validity study we wanted a larger sample of different experts, including FCE practitioners with "known experience in, or relevant to, functional capacity evaluations". Hence, the sample included practitioners known to be experienced in FCE as well as other experts from ergonomic and academic backgrounds and expertise.

Dr Reneman and his colleagues suggest that the experts would have been better operationally defined by the number of FCEs they had completed. We agree that this would have been valuable information. However, FCE practitioners do not necessarily record this information so if asked about this it would not necessarily have been reliable information. Furthermore, we did not only want practitioners as experts, as we believed that experts from other related fields such as research, policy, ergonomics and test development had expertise to contribute.

We acknowledge that the "experts" were limited to the discipline of occupational therapy. However, we assert that occupational therapists are one of the core disciplines involved in the provision of FCEs with injured workers. Indeed, surveys of both US [11] and Australian occupational therapists [4], indicate that FCE's form a major part of the work practice of occupational therapists working in work rehabilitation. We also acknowledge that the experts were all Australian-based. This again was for convenience and because the recruitment was by personal knowledge of the therapists' expertise by the researchers. Therefore, strictly speaking, we concede that the results may only be generalizable to Australian occupational therapists.

Similarly, the authors argued that the results may only be generalizable to those trained in the GAPP FCE, which we also acknowledge. (The GAPP FCE has only to date been used for research purposes). However, the experts were not given the complete test. Rather, they were given a description of each item and the specifications based on the physical demands in the DOT. Hence, we reiterate our suggestion that the research "not only contributes to the content validity of the GAPP FCE, but *may* [our emphasis] have implications for FCEs in general, particularly those which are based on the DOT

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and are used to assess clients with chronic back pain" (p. 168).

Given that we had previously conducted a smaller, more intensive review of the GAPP FCE in its earlier stage of development [7], with a small select group of "experts", and that the item validity study was just one in a group of studies of the research and development of the GAPP FCE, we wanted to sample a larger number of "experts" and subject it to wider range scrutiny for larger numbers and for greater potential confidence in the findings.

To our knowledge, no other FCE approach has been subjected to such systematic examination of its content and reported on it in the peer reviewed literature.

We agree with Dr Reneman and colleagues that a follow-up study as they suggest to compare the opinions of different "experts" would be worthwhile.

The second concern of Dr Reneman and colleagues relates to whether the opinions of our sample of "experts" represents the truth and whether the experts are indeed correct. As stated earlier, content validation is a subjective process, so if the aim is for achievement of absolute truth, it will remain elusive or unachievable. We never suggested, or at least never intended to suggest, that the opinions of our sample of experts represents the absolute truth. Just as with any evidence, the findings were simply presented as findings of a group of "experts" to be considered and to add to the body of knowledge about FCE content and use. It is indeed only one study contributing some evidence. We presented the findings about the issue of safety and load handling in FCE for consideration for the future of the GAPP FCE and perhaps other FCEs and FCE users.

With the example of the concern about recommending against heavy lifting both in FCEs and in return to work (RTW) and that "the evidence in the role of heavy lifting in LBP has not been overwhelming, yet it continues to be a strong belief of many professionals", we are in fact not convinced that heavy lifting in FCEs and RTW is not a concern. It is beyond the scope of this letter to debate the aetiology of back pain. Suffice to say that it could be argued that although the evidence is that the aetiology of back pain is complex and multifactorial and psychosocial factors are being recognised for their large role [5], and that the relative contributing role of heavy lifting is under debate, there remains evidence that lifting or manual handling of loads, particularly heavy lifting, is a contributor (e.g. [10,12]). In that light, until the evidence conclusively shows it is NOT a factor then we agree with the opinion of the majority of therapists in our study that caution about

heavy lifting is required in FCE practice and in making recommendations for RTW.

Although we agree with Dr Reneman et al.'s point about professionals' beliefs contributing to fear avoidance beliefs, and concur that health professionals need to encourage workers with pain to stay active and recommend workers can work with pain and return to physically demanding activities, as recommended by international occupational health guidelines [15], this needs to be measured advice and in balance with prevailing standards. Such standards, in Australia at least, are attempting to eliminate heavy manual handling from workplaces, for the prevention of back injury from happening in the first place, let alone for workers with existing back pain or a history of back injury. There is promise that workplace-based ergonomic interventions, particularly workplace adaptation, can improve RTW for workers with chronic back pain [1].

As we discussed in a companion paper on safety issues in FCE [8], we recognise the evidence that restrictions on RTW can limit RTW prospects of injured workers [9]. We also noted in this companion paper the limited evidence about RTW for workers with back pain. In the absence of such evidence, we suggest consideration of prevailing guidelines [8]. Indeed, it may be that our concerns about recommendations for handling of heavy loads in RTW and the evaluation of lifting of heavy loads in FCE may only be relevant to Australia. To recommend otherwise would contravene the prevailing standards in Australia. In a recent review of the epidemiology and aetiology of low back pain and lifting [2] and an examination of loads placed on the lumbar spine during a work capacity assessment [3], similar concerns to ours were raised about the safety of lifting assessments used in "functional work capacity assessments".

However, our concern, and the concern of the therapists from our study, appears supported by recent lifting guidelines for workers with back pain, that are considered necessary because people with LBP experience a higher risk of injury due to increased spine loading from increased levels of guarding or muscle co-activity [Ferguson, 2005 #1183]. This has been supported by another recent study comparing muscular activation patterns of people with and without low back pain performing a lifting component of a FCE [6].

As developers of an approach to FCE, we felt that the bottom line, given the absence of evidence that manual handling does not cause or aggravate LBP we would err on the side of caution and support recommendations that gradually return the person with back pain

to physically active duties using healthy and safe work practices. Anything other than this would contravene prevailing workplace standards, in Australia at least. Therefore, as suggested by Dr Reneman et al., the findings may only be relevant to Australian workers with back pain returning to work. We contend however, that the ergonomic literature suggests otherwise.

Finally, we reiterate that our Kernoske et al. paper presented the findings of the majority of the group of therapists that we surveyed and attempted to add some evidence to a poorly researched area. We are pleased that our submission of this research for open scrutiny has stimulated a debate, something that has been lacking in the FCE literature to date.

Yours sincerely,

Dr Libby Gibson and Professor Jenny Strong

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