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Response to letter : "Clinical biopsychosocial physiotherapy assessment of patients with chronic pain: The first step in pain neuroscience education

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Correspondence to the Perspective article “Clinical biopsychosocial physiotherapy assessment of patients with chronic pain: The first step in pain neuroscience education”

We would like to thank Rob A.B. Oostendorp and his co-authors for their positive feedback on our recent article on the biopsychosocial physiotherapy assessment of patients with chronic pain (Wijma, van Wilgen, Meeus, and Nijs, 2016). In their letter to the editor Oostendorp et al. addressed important issues regarding to the familiarity of physiotherapist with the psychosocial-aspects of the biopsychosocial assessment and the usability of the Pain-Somatic-Cognitive-Emotional-Behavioral-Social-Motivation (PSCEBSM)-model. Here we take the opportunity proposed by the Editors to respond to commentary of Oostendorp et al.

First, we would like to take the opportunity to acknowledge the important contributions of Oostendorp et al. to the field of the physiotherapy assessment by their article concerning the biopsychosocial intake by manual therapists in patients with back or neck pain (Oostendorp et al, 2015). Although the biopsychosocial perspective was introduced in medicine by Engel in 1977 (Engel, 1977) the use in clinical physiotherapy practice seems to be impaired. As well-studied by Oostendorp et al. and reviewed in our article, the abilities to perform the psychosocial aspect of the biopsychosocial intake is indeed sometimes lacking and physiotherapist mainly tend to focus on the ‘Bio’ aspects (Daykin and Richardson, 2004; Haggman, Maher, and Refshauge, 2004; Overmeer, Linton, and Boersma, 2004; Roussel et al, 2016; Singla, Jones, Edwards, and Kumar, 2015; Synnott et al, 2015; Valjakka et al; van Wilgen et al, 2014). We could not agree more with Oostendorp et al. that

physiotherapists primarily assess the somatic dimension. Thereby the physiotherapy practice somehow seems to cling to the Biomedical perspective, even in the treatment of chronic pain in which guidelines prescribe a biopsychosocial approach. In order to shift this paradigm the clinical biopsychosocial physiotherapy assessment as described in our recent article arose. This clinical biopsychosocial assessment is designed as a guideline for physiotherapists to include all aspects of the biopsychosocial perspective, and especially to not forget the psychosocial part. However, we do recognize that only reading is insufficient to allow (deep) learning and that there is a difference between learning and changing behavior in practice. The biopsychosocial perspective is long time incorporated in multiple guidelines regarding the treatment of patients with chronic pain and in pre- and postgraduate physiotherapy courses. Yet the profession seems to struggle to merge it into their behavioral-skills in daily practice. This might be because the majority of physiotherapists have received a biomedical-focused (pre/post) graduate education. Specific training regarding the biopsychosocial approach can facilitate physiotherapists in biopsychosocial clinical reasoning (Jacobs et al, 2016; Synnott et al, 2016). Furthermore, we suggest that novel ways are investigated, in cooperation with physiotherapists, to see how we can further improve the implementation of the biopsychosocial perspective. As we need to change this paradigm of biomedical-behavior in physiotherapy practice.

We agree with Oostendorp et al. that the original Somatic-Cognitive-Behavioral-Social (SCEBS) method as described by Spaendonck and Bleijenbergh (van Spaendonck, 2010, 1995) differs in content from the PSCEBSM-model described in our article. In contrast to the SCEBS-method, the PSCEBSM-model contains two

additional domains useful in the pain assessment, namely the P-Pain-factor and M-motivation factor. The chapter regarding the Pain-factor, contains the differentiation between three major pain types (Nijs et al, 2014). Identifying the primary pain mechanism allows the physiotherapist to tailor the pain neuroscience education to the patients' complaints.

The Motivational-factor was added because motivation for a specific treatment such as PNE is essential to recognize and is often related to the expectations and perceptions of a patients. It is suggested that a higher motivation results in better outcomes in treatments (Nosyk et al, 2010; Stewart et al, 2016). However, 'motivation' in itself is an ambiguous concept containing several elements, of the SCEGS-model, such as personal factors, social factors, factors related to the physiotherapist and factors related to the relationship between the patient and physiotherapist (Maclean and Pound, 2000). To aid physiotherapists with this ambiguous concept, we suggest to add motivation in the PSCEBSM-model. The aforementioned can be used to help investigate the treatment expectations, psychological flexibility to change and the stage of change the patient is currently in. Furthermore, physiotherapists should be aware of the influence their own attitude towards the patient and interactive factors have on the motivation of the patient.

Where the original SCEBS method focused on questions in regard to the different biopsychosocial dimensions (for instance: "Are you anxious about particular activities?" or "Are you depressed?"), the PSCEBS-model discussed in our article also includes questionnaires. The questionnaires were added for two reasons. First, to aid physiotherapists in recognizing psychosocial factors. As mentioned above physiotherapists may feel unprepared to deal with those factors and the

questionnaires can be used to screen for psychosocial factors and to aid in the conversation. Second, to evaluate the treatment in an objective manner where possible.

The last focus of the commentary by Oostendorp et al. were the recommendations for further research. Our recommendation was that the (value of the) clinical biopsychosocial assessment as described in the article requires further investigation in clinical trials. Such trials can serve to explore the added value of the biopsychosocial assessment for treatment outcome, but depending on the study aims (e.g., examining the clinimetric properties of parts of the biopsychosocial assessment), a different design (e.g., test-retest observational studies) may be needed. We acknowledge that the form and content of such research was not described in our article, as it goes beyond the scope of our paper. Furthermore, we agree with Oostendorp et al. that investigating the physiotherapy assessment of patients with chronic pain in a total scope by Quality Indicators (QI's) certainly deserves attention. As described previously a behavioral change in physiotherapists is necessary. QI's, elements of practice that can be used to assess the (change in) quality of provided care (Lawrence and Olesen, 1997), are appropriate evaluation measures to assess such behavior change. Oostendorp et al. already developed a high quality and appropriate QI set in their research into the biopsychosocial history taking of manual therapists(Oostendorp et al, 2015) that might be suitable to study change in biopsychosocial behavior of physiotherapists when implementing the PSCEBSM-model. Improving patient care should be the main focus of innovations, such as the PSCEBSM-model, and it is a necessity that those innovations are thoroughly evaluated.

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