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# Effect of education on non-specific neck and low back pain:

A meta-analysis of randomized controlled trials: letter to the editor

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## Effect of education on non-specific neck and low back pain:

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In the recently published article "Effect of education on non-specific neck and low back pain: A meta-analysis of randomized controlled trials", the authors conclude that education programs are not recommended in preventing or treating neck pain and/or low back pain (LBP). We agree there are some important clinical implications in this review, and agree that their results suggest at least some forms of education are ineffective. However, we think that there are alternative conclusions which could be drawn from the presented data.

The authors found thirty-six randomised controlled trials which examined the effect of education programs on non-specific neck and/or LBP, with fifteen of these studies included in a meta-analysis. The meta-analysis indicates that education programs have no consistent positive effects on low back pain. From the data included in the meta-analysis it is logical to suggest that education programs are not effective in preventing/treating neck pain and/or LBP. However, most studies included in the meta-analysis contained biomedical education regarding biomechanics or posture where the focus is often on "protecting" a "damaged" back, which is not in line with contemporary pain physiology. We think the results highlight the importance of considering the type of education provided to patients and that the results are limited by the studies included in the meta-analysis.

Previous systematic reviews have indicated that biomedical education has limited efficacy and may negatively affect outcomes for LBP<sup>2-4</sup>. Shaw et al<sup>5</sup> noted that increased biomedical-based communication resulted in an increased incidence of development of chronic pain in a group of acute low back pain sufferers. Biomedical education has also been shown to increase focus and attention on pain and has been shown to have a significant negative impact on pain<sup>3,6</sup>. For these reasons, we agree with the authors that such education programs should not be used among people with persistent pain<sup>7</sup>.

However, the authors acknowledge that some education may be effective in the treatment and prevention of neck pain and/or LBP. There has been a shift in recent years towards biopsychosocial education which includes education on the robustness and function of the spine, information on keeping active and information on coping with pain. Two reviews<sup>8,9</sup> indicated that neuroscience education, which is based on biopsychosocial education, may be effective in treating chronic musculoskeletal pain and LBP. Pincus et al<sup>10</sup>

and Treager et al<sup>11</sup> also completed reviews indicating that biopsychosocial reassurance significantly reduces healthcare utilisation. Previous studies<sup>12,13</sup> and reviews<sup>14</sup> suggest that biopsychosocial education produces superior outcomes to biomedical education, though the effect sizes are modest. Therefore we believe it is important to distinguish between the effects of different types of education, rather than assuming their effectiveness is similar.

In conclusion, we think this review effectively highlights that poor education, which is not in line with a contemporary understanding of pain mechanisms, results in poor outcomes. However, not all education is the same and to treat them as such within a meta-analysis runs the risk of throwing the baby out with the bathwater. Therefore we disagree with the blanket conclusion that education programs are not recommended in preventing or treating neck pain and/or LBP.

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