Implementing a model of care for Low Back Pain (BetterBack)-Does it improve physiotherapist´s confidence and biopsychosocial treatment orientation?

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Background: Low Back Pain (LBP) is the leading cause of disability globally and one of the most common cause presentations in primary care. There are evidence-based guidelines for LBP, however few are tested and evaluated in clinical practice. Implementing evidence-based guidelines is challenging where health care practitioners play a central role. To facilitate their uptake, we developed and with a multifaceted strategy implemented a model of care (BetterBack) to provide support for management of LBP in primary care. BetterBack☺ includes clinical decision pathways to facilitate physiotherapists´ to use a biopsychosocial behavioral approach, pain education and exercise program resources to empower patients to self-manage.

Purpose: To evaluate physiotherapists' self-confidence in managing patients with LBP, implementation behaviours and biopsychosocial treatment orientation before and 3 months post-implementation of BetterBack.

Methods: This effectiveness-implementation cluster randomized hybrid type 2 trail included 116 physiotherapists from Östergötland region of Sweden. They attended a 2-day course when the BetterBack was implemented. A survey was administrated pre and 3 months post implementation. Primary implementation outcome was the Practitioner Confidence Scale (PCS) for LBP management and secondary outcomes were the Practitioner Attitudes and Beliefs Scale for physiotherapist (PABS-PT) measuring biopsychosocial and biomedical orientation for LBP treatment and Determinants of Implementation Behaviour Questionnaire (DIBQ) evaluating practitioners' implementation behaviour. Data were analyzed using t-tests.

Results: After 3 months post-implementation (n=116) the PCS was significantly improved (M=8.8, SD=2.1) compared to before implementation (M=10.4, SD=2.4), $p \leq 0.001$) with a moderate Cohen´s d effect size=0.52. At 3 months no significant differences were evident in PABS-PT as biopsychosocial treatment orientation for LBP was already reasonably high (M=38.9, SD=4.8) and biomedical treatment orientation reasonably low (M=32.0, SD=7.0) at baseline. DIBQ directly after the start of the implementation showed moderate to high scores for all implementation behaviour domains. At 3 months post-implementation, implementation behaviours were maintained for physiotherapists´ intentions in applying the BetterBack as well as beliefs in patients' positive expectations. There were statistically significant negative trends after 3 months in the domains knowledge, skills, capability, consequences, innovation, organisation, social influence and behavioural regulations but scores in these domains were still moderate to high.

Conclusion(s): Physiotherapists self-confidence significantly improved 3 months post-implementation of BetterBack. Improved self-confidence in the physiotherapists can enhance the care provided to patients with LBP in a primary care setting. Physiotherapist did not change their biopsychosocial treatment orientation which was scored high already at baseline. Directly after the 2-day course, intentional implementation behaviours were high. However an interesting result after 3 months is that intentions and patient positive expectations were maintained but there were negative trends in other implementation behaviours, indicating that implementation behaviours decreased with real practice experience.

Implications: Implementation of BetterBack model of care improves physiotherapists´ self-confidence in managing patients with LBP and may have the potential to improve management of LBP in primary health care. However there is need to support sustainability of practitioner implementation behaviours. Further analyses of 12 month follow-up will be conducted.

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Brief biography of presenting author: (200 words)

The presenter will be Karin Schröder. She has been working as a physiotherapist in Swedish primary care for 24 years and as a chief executive officer at a private physiotherapy clinic for 12 years. Karin has during these years obtained substantial experience of managing patients with low back pain. Since 2009 she has combined patient work and leadership with teaching at the physiotherapy department at Linköping University in Sweden. She has also been involved in many different physiotherapy studies during the years both as the treating physiotherapist and as physiotherapist manager. These experiences led to an interest in implementation research. Since one year ago Karin is an early career researcher. The presented

study is part of her PhD project. Karin is a part of a national implementation network based at Linköping University. Furthermore, she is part of an international network working with implementation of guidelines for low back pain with members in Sweden, Denmark and the Netherlands.