



Some Hidden Practical Points in Chronic Musculoskeletal Pain Prevention

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ABSTRACT

Chronic MusculoSkeletal Disorders (MSD) affects about 20% of adults, yielding significant functional, professional and mood disabilities, resulting in surprising economic burden annually worldwide [1, 2]. Low Back Pain (LBP) and chronic cervical pain are the most common and catastrophic ones leading in disability and work absenteeism [2]. Despite wide coverage of researches and literature regarding chronic MSD pain and developing evidence-based guidelines to help patients and physicians [3, 4], the high proportion of such patients suggests shortage of present strategies. Studies showed neglected acute pains could cause neuroplasticity processes in Central Nerve System (CNS) which stimulate pain centers without stimulants leading to chronic pain that is difficult to manage [5]. Therefore, prevention of pain chronicity might have large effects in terms of patients' quality of life and costs for health care system. We need to know: factors influencing pain chronicity, recognizing tools to detect these factors and using strategies to target factors for further changes.

Factors influencing pain chronicity

Risk factors have been described in literature as yellow flags which are categorized into mainly psychosocial and environmental

factors. Pain chronicisation process is result of complex biopsychosocial changes, including changes in motor control, sleep disturbances, and emotional, cognitive, relational and behavioural processes, extracted from recent studies [6, 7]. Although strong evidence supporting the value of yellow flags and the fact that these factors are modifiable, few studies attempted to use interventions to confirm factor modification effects [8, 9]. Hallner et al. used artificial neural network to classify the pain intensity 6 months after the onset of treatment. They suggested the necessity of an early screening procedure for differentiation between high risk groups and a low risk ones in order to predict the long-term development of pain [10].

Recognizing tools to detect risk factors

Several questionnaires have been validated for detecting risk factors, including the STarT Back Screening Tool (SBST)^[11] and the Örebro Musculoskeletal Pain Screening Questionnaire (OMPSQ)^[12]. Studies approved prediction of clinical outcomes by psychology-based measures with good sensitivity and specificity of these tools [13, 14]. A systematic review suggested the OMPSQ as a better prognostic tool, whereas the SBST as more

accurate tool for treatment allocation. Moreover, the SBST is found to be more user-friendly and has been used more^[9].

Using strategies to target factors

“Physiotherapy” or “Cognitive Behavioral Therapy” (CBT) are very broad terms and can cover different parts. For example, physiotherapy often consists graded exercise, strengthening, stretching, massage, use of physical agents, etc which selection of each part influence patient outcome. Most of the time, we are not sure about appropriate target of factors due to weak team works and lack of communication among individuals of pain management team.

One of hidden parts is communication skills of therapist. Studies suggested need for specific therapist competencies, such as delivering positive messages or patient empowering. The importance of a psychologically informed education of nurses, physiotherapists and physicians has been emphasized ^[15]. Furthermore, interventions for educational purposes including interactive educational programs, workshops, case discussions and peer-reviews showed controversial findings ^[16-18]. Using practical guidelines and mentoring programs for supporting newly educated personal is recommended for better improvement of communication skills of therapists.

In conclusion, emerging evidence suggests a need to stratified approach to chronic MSD using screening tolls based on yellow flags, for reducing long-term disability in medium- and high-risk patients and in preventing over-treatment of low-risk patients. Moreover, important challenge is to improve the educational needs of healthcare professionals, who should earn not only better biopsychosocial knowledge of chronic pain basis but also better competencies to handle risk factors.

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