Identifying clinical features associated with an increased risk of chronicity is considered an important part of the assessment process for low back pain patients. Kendall et al’s (1997) seminal work drew attention to the role of psychosocial risk factors as indicators of potential long term disability and work loss. Within this publication the term yellow flag was first coined as a label for the key psychosocial risk factors. The authors suggest that cardinal yellow flags, which consistently predict poor outcome, include aberrant beliefs regarding back pain, fear-avoidance behaviors, low mood, social isolation and a high expectation of passive treatment interventions. Refinement of the flag system has lead to the use of the term blue flags as a label for occupational psychosocial risk factors. It has been suggested that key blue flags include negative expectations of returning to work, job dissatisfaction, stress at work, work related fear avoidance beliefs, perceptions of physical job demands and poor work relationships (Gray et al 2011). Over the last decade a significant research basis has developed underpinning this topic. Recent evidence of this can be seen in a series of articles published in a therapy journal last year under the heading psychologically informed practice. This essay aims to summarize some of the key findings from the literature and outline the evidence basis behind psychosocial risk factors and LBP. It also aims to offer some thoughts on assessment and intervention strategies.

Recent reviews continue to support the position that psychosocial risk factors have value as prognostic indicators. Nicolas et al (2011) considered the findings of 12 reviews on the topic and point out that while the relative importance of individual factors remains a cause of debate, the evidence as a whole demonstrates a clear relationship between the presence of yellow flags and poor outcomes. The authors contend that ongoing pain is more likely in individuals who show evidence of frequent catastrophizing, depression, high levels of pain and fear-avoidance beliefs. Gray et al’s (2011) review demonstrates similar conclusions regarding blue flags. In the introduction of this article the authors identify 13 reviews on the topic. Clear support from multiple reviews was found for the role of negative expectations of a return to work and for perceptions relating to the physical demands in the work place as prognostic indicators. Conflicting findings were found regarding the merit of the remaining blue flags. However, it is worth considering that the article identified more reviews supporting the prognostic value of risk factors such as job dissatisfaction, stress at work and fear avoidance beliefs, than reviews suggesting that these factors are not associated with negative outcomes.

Kendall et al (1997) guide recommends that skilled clinical assessment and the use of a screening questionnaire represents best practice for identifying psychosocial yellow flags. This guide is endorsed by, and intended to compliment, the current New Zealand Low Back Pain Guide (2004). It remains a good resource for clinical assessment strategies and the information included under the headings of Attitudes and Beliefs about Back Pain, Behaviors, Compensation Issues, Diagnosis, Treatment, Emotions, Family and Work remains a good starting point for clinicians less familiar with this topic (a link to the guide is included in the references). Support for the guide’s questionnaire, commonly referred to as the Örebro Musculoskeletal Pain Questionnaire, can be found within the literature. Linton and Boersma (2003) report that a cutoff score of 90 points had a sensitivity of 80% and a specificity of 65% for loss of work days due to sickness, and a sensitivity of 74% and a specificity of 79% for predicting functional ability at 6 months. In a more recent systematic review it was concluded that the questionnaire had moderate predictive ability and could be recommended as a screening tool suitable for clinical practice (Hocking et al 2008). Shorter questionnaires designed for primary care have also been developed. The STarT Back Screening questionnaire classifies patients as low, medium or high risk based on a 9 item tool. Comparisons of patients in the medium and high risk group with the low risk group produced as sensitivity of 80.1% and a specificity of 65.4% for predicting poor functional outcomes at 6 months (Hill et al 2008).

Within the literature a number of questionnaires have been developed as screening tools for occupational psychosocial risk factors. However, their validity has recently been questioned. Gray et al’s (2011) systematic review identified 8 relevant studies covering 6 different questionnaires. The review concluded that based on the absence of sufficient psychometric testing in relevant study populations, none of the
assessment instruments can be recommended for routine clinical use at the present time. For clinicians working in occupational medicine, Nick Kendall and his colleague Kim Burton have a useful library of resources available at their web site (www.kendallburton.com). Many of the resources are clinically practical ranging from patient education material and action plans to academic papers.

Nicholas et al’s (2011) review article includes a synopsis of the evidence for interventions aimed at targeting psychosocial risk factors in the low back pain population. The review demonstrates that the majority of the research supports treatment protocols that include psychological interventions (commonly interventions based on cognitive-behavioral principles) over “usual care” (commonly symptom based treatments). 11 out of 17 studies support this conclusion based on functional or return to work outcomes. Critical analysis of the 6 studies that did not support the use of specific psychological interventions, by the review authors, identified a number of potential methodological considerations worth highlighting. Perhaps the most notable was the use in each of the studies of subject groups chosen according to symptom duration rather than the presence of psychosocial risk factors. In addition, variations between studies existed in both the psychological intervention adopted and the choice of health professionals used to deliver the intervention.

It is worth noting that none of the 6 negative studies used a psychologist. In contrast a psychologist, or equivalent, was used in 7 out of the 11 studies that did support the use of specific psychological interventions. It is clear from the collective body of work that other clinicians can successfully apply cognitive-behavioral therapy (CBT) interventions. For example, in a recent study by Lamb et al (2010) Physical Therapists provided the majority of the cognitive-behavioral treatment in which significant long term reductions in disability was shown in a group of subacute and chronic LBP patients. However, the evidence as a whole does suggest that the clinician’s skill set and the content of the cognitive-behavioral intervention may affect treatment success.

This essay reflects the position that LBP is best understood within a biopsychosocial context and that the ability to identify and manage salient psychosocial factors is a skill set that therapist would do well to develop. While a number of psychopathological conditions (clinical depression, anxiety disorders etc) are clearly the domain of mental health professionals, many yellow and blue flags can be managed by skilled therapist using interventions that range from patient education to basic CBT strategies. Foster & Delitto (2011) provide a useful pyramid diagram suggesting how the management of psychosocial factors can be integrated into clinical practice. At the base of the pyramid are psychosocial factors that are more easily managed and represent strategies that all therapists can and should employ without the need for extensive additional training. Examples include education and graded activity to reduce fear of movement, the encouragement of personal control and self-efficacy and the use of effective reassurance and positive reinforcement. In the middle of the pyramid are risk factors that would require additional skilled training. Examples include CBT techniques for eliciting and managing unhelpful cognitions and low mood. At the top of the pyramid are risk factors associated with psychopathology that require referral to mental health professionals or treatment within a multidisciplinary team.

References


