



## Masterclass

## Applying principles of self-management to facilitate workers to return to or remain at work with a chronic musculoskeletal condition

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## ABSTRACT

It is incumbent on health care professionals to support patients with chronic musculoskeletal conditions to manage the impact of the condition on their life. Work is a positive health behaviour for which self-management skills are essential. In this paper, self-management is defined and the role of clinicians in promoting self-management for return to work is outlined with examples and tips on how the clinician can incorporate self-management into practice. The clinician is ideally placed to assist individuals with chronic musculoskeletal conditions manage to remain at work or return to work. This can be achieved through such activities as the promotion of the core self-management skills of problem-solving, decision making, resource utilisation, developing a cooperative partnership between clinician and patient and making an action plan.

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## 1. Introduction

Worldwide, chronic illnesses contribute 60% of the global burden of disease, with predictions of 80% by the year 2020 (Murray and Lopez, 1996). In Australia, people with chronic diseases are 60% less likely to participate in the labour force (Australian Institute of Health and Welfare, 2009), thus contributing a significant burden to the individual and the community in direct and indirect costs due to health care use and absence from work. Musculoskeletal Disorders (MSD) is the most common cause of chronic severe pain, long-term physical disability, work limitations and unemployment (Woolf et al., 2010). In addition, compensation claims for work-related injuries account for over 40% of the \$57.5 billion annual expenditure of work-related injuries and diseases in Australia (Zheloukhova et al., 2012). Manual therapist interventions for the management of MSD may include manual therapy, exercise prescription, advice and education. Inherent in the management of these conditions *should be* the education and training of the individual to *self-manage* their condition and its impact on their quality of life.

Self-management (SM) principles have been adopted in the management of chronic diseases such as diabetes, asthma and

cardio-pulmonary disease. In the manual therapy setting, SM techniques are likely to be most useful in assisting patients manage chronic pain and disability associated with long term and recurrent musculoskeletal conditions such as arthritis and back pain. SM skills can be delivered effectively in many different ways, including facilitated groups, individual programs, telephone counselling programs and even self-instruction (e.g. web-based). The approach that lends itself best to being adopted by a clinician generally involves facilitating and emphasizing the *partnership* between the health professional and the patient. It requires training of the health professional to 'let go' of their traditional role of carer. It is only then that the clinician can properly encourage health-related behaviour change in the patient (Lawn and Schoo, 2010).

In terms of its effectiveness, SM, in its various forms, has resulted in functional improvements such as decreased pain severity, pain self-efficacy and general disability, as well as improved psychological well-being, such as lower stress, depression and anxiety for those with chronic pain conditions and MSD (Chiauzzi et al., 2010; Nicholas et al., 2012; Ruehlman et al., 2012). There is also evidence of the adoption of SM strategies by those with chronic MSD after SM education, such as increased use of positive self-talk, greater use of social support, increased time spent in physical activity and improvements in self-efficacy (Von Kroff et al., 1998; Damush et al., 2003; Chiauzzi et al., 2010). A recent systematic review evaluating the effectiveness of different SM course content and characteristics for treating musculoskeletal

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pain showed more beneficial health effects when SM training was delivered in group programs that were shorter (<8 weeks) and led by a health care professional (Carnes et al., 2012). Individually based interventions also have good health outcomes but are less frequently studied (Barlow et al., 2002; Hayden et al., 2005; Engers et al., 2008). What seems important are the skills learnt to manage the impact of the condition on the individual's life.

The most widely accepted and used SM tool is the Chronic Disease Self-Management Program (CDSMP); a group program developed by Kate Lorig of Stanford University (Lorig et al., 1996; Foster et al., 2007). In addition to the generic CDSMP, disease-specific versions of the program have since been developed for arthritis which demonstrate some evidence of better outcomes at least in the short-medium term (Warsi et al., 2004; Lorig et al., 2005). Also of clinical relevance is the preliminary evidence suggesting that not all aspects of SM suit all individuals, and that there may be some promise in tailoring SM programs to particular patient attributes, settings or contexts (Hamnes et al., 2011; Matthias et al., 2012; Johnston et al., 2012a). Tailoring SM to individuals is in its early stages, but seems to be worthwhile exploring.

Although clinicians are probably quite familiar with strategies to promote the SM of pain they may not be as familiar with strategies to promote SM for the prevention of work disability. Indeed, very few studies have directly assessed the potential benefit of adding SM to vocational rehabilitation for those with work-related, compensated MSD. The preliminary results of the few studies that have investigated the potential for SM in work disability prevention and work-related injury recovery are not yet conclusive, but certainly advocate further exploration (Taylor et al., 2001; Vauth et al., 2005; Barlow and Ellard, 2007; Lacaille et al., 2008; Shaw et al., 2012).

The purpose of this paper is to a) define self-management; b) outline the role of the clinician in promoting self-management for return-to-work (RTW); c) detail the skills required for effective self-management and how these can be promoted in daily practice to assist individuals with chronic musculoskeletal conditions manage to remain at work or return to work; and d) discuss the importance of determining readiness for work.

## 2. Definition of self-management in the context of RTW for those with chronic MSD

There is no gold standard definition for SM. Terms like 'self-care', 'self-help' and 'self-treatment' are often used in the same context and certainly clinicians are familiar with self-help guides for managing chronic pain (Wells and Nown, 1998; Nicholas et al., 2003; Turk and Winter, 2006) and region specific pain such as whiplash (Jull and Sterling, 2011). This definition of SM emphasises the role of the individual in the process: "It involves (the person with the chronic disease) engaging in activities that protect and promote health monitoring and managing of symptoms and signs of illness, managing the impacts of illness on function, emotions and interpersonal relationships and adhering to treatment regimes" (Gruman and Von Kroff, 1996). Thus, SM refers to activities which promote health but also prevent deterioration by gaining skills which can be applied to new problems as they arise to increase self-efficacy in managing the condition as it progresses (Lorig, 1993).

The theoretical framework used in the development and delivery of SM interventions, Bandura's theory of self-efficacy, contends that behaviour change is achieved through gaining confidence to carry out an action and expectation that a particular goal will be achieved (Bandura, 1977). More recently, models of health behaviour change (Ajzen, 1991; Dijkstra et al., 2001; Schwarzer and Luszczynska, 2008) have been adopted to better

understand the processes underlying behaviour change relevant to recovery and health maintenance for those with chronic conditions. Based closely on Bandura's self-efficacy theory, the models allow us to understand the processes that lead to an improved perception of behavioural control, or the confidence in the ability to inhibit injury-compromising behaviours in favour of behaviours that are more likely to facilitate recovery and rehabilitation (Ellis et al., 2013). The recent and relevant adaptation specifically to MSD and pain conditions, the 'Motivational Readiness for Pain Self-Management' (Jensen et al., 2003) model predicts that those with low self-efficacy are unlikely to make much progress in terms of recovery while they have low perceived behavioural control and accept very little personal responsibility for controlling their pain. Promoting SM of pain is only one of several components often included in traditional SM interventions for those with a chronic MSD condition (Table 1).

Individuals wanting to return to, or remain at, work while managing a chronic musculoskeletal disorder report multiple difficulties (Roberts-Yates, 2003; Shaw and Huang, 2005; MacEachen et al., 2006; Wynne-Jones et al., 2008; Tveito et al., 2010). Workers express concerns about: managing pain and its impact on performance at work and colleagues at work; fear of re-injury should they return too soon; limited knowledge of their rights and organizational policies on sickness absence, work modifications or workers' compensations entitlements; repercussions from disclosing their condition/pain in the workplace; the perceived legitimacy of their injury especially one that is 'invisible'; feelings of reduced worth as an employee; a lack of flexibility in job tasks. There are limited resources available to assist workers with such concerns as most SM programs focus on pain management rather than workplace issues (Shaw et al., 2012). This has prompted researchers to develop interventions to enhance SM to improve vocational outcomes or readiness for work in individuals with chronic MSD (Li et al., 2006; Ellis et al., 2010). Of note, the authors are currently undertaking a randomized controlled trial to evaluate the benefit of adding an 8-week SM intervention to usual care to improve vocational outcomes for those disabled by a chronic, compensated, musculoskeletal condition (Ellis et al., 2010). As SM is

**Table 1**  
Components of traditional SM interventions.

Main Component <sup>a</sup>	Content
Management of symptoms/pain education	Understanding the disease/condition Managing medication Breathing techniques Managing fatigue and flare-ups Self-monitoring (eg pain diary)
Management of psychological consequences	Behavioural or cognitive therapy – decisional balance, cognitive restructuring
Promoting healthy lifestyle	Dietary advice, overcoming barriers to exercise, sleep management; physical activity and exercise
Mind-body therapies	Meditation, visualisation, guided imagery, distraction, relaxation
Other components	Career planning Goal setting Spirituality Assertiveness Importance of social support from family and significant others in the community

<sup>a</sup> These components have been summarised from Barlow et al. (2002), Shaw et al. (2011) and Carnes et al. (2012).

considered part of patient-centered care, clinicians are well positioned to create opportunities for the individual to learn and practice key SM skills within the safe environment of the patient–clinician relationship.

In summary, the central goal of SM, enhanced self-efficacy, is associated with improved clinical outcomes and positive health behaviours (Marks et al., 2005). Work is increasingly being viewed as a positive health behaviour (Black, 2008). Therefore, it is logical that SM skills be used to facilitate those with chronic musculoskeletal pain to remain at or return to work. Clinicians should consider ways in which SM skills can be promoted and supported in these patients to ensure that they can achieve their work-related goals.

### 3. Role of clinicians in promoting SM for the patient returning to or staying at work

The adoption of SM strategies is an optimal outcome from physiotherapy for many chronic musculoskeletal conditions as reflected in professional guidelines (Australian Physiotherapy Council, 2006; American Physical Therapy Association, 2011). However, there is evidence suggesting that physiotherapists (Cooper et al., 2009) and vocational rehabilitation (Ellis et al., 2011) consultants do not consistently facilitate SM. Clinicians can adopt SM strategies at each stage of rehabilitation from the initial acute phase through the conditioning and RTW phases by involving the patient in the management of their injury. While the goal of traditional patient education is compliance (e.g. with exercise), the goal when SM is incorporated into practice is increased self-efficacy.

In the acute phase, the patient may be taught strategies to continue at home for the control and reduction of localized inflammatory response, pain, joint and soft tissue swelling or restriction, and the stabilization of the injury. The condition and its impact on their function are explained and a management plan agreed. The clinician promotes SM by facilitating the patient to engage in pain relieving strategies and to learn the best way to manage their pain, activities to avoid or perform differently to minimise negative impact on the injured body part potentially mitigating fear of movement and/or activities.

In the post-acute phase, the patient is actively engaged in activities to regain function appropriate for self-care and RTW – those activities which the patient nominates as important or relevant. This phase may include graduated therapeutic exercise to increase muscle performance, improve joint mobility, and improve motor function (motor control and motor learning). Together, the clinician and patient should design the exercise program with the patient's interests, lifestyle, occupational demands, age and injury status in mind. Engaging the patient in decision making as to the timing, frequency and type of exercise will enhance self-efficacy and ownership of the rehabilitation process. Positive reinforcement from the clinician and family and, most importantly, from the self-confidence gained from attaining goals that they set with the clinician, will provide the incentive to continue.

Discussions and planning for work should occur early in the rehabilitation process and indeed physiotherapists are cognisant of the importance of developing RTW as the goal of treatment (Johnston et al., 2012b). Rehabilitation for work is optimal when it can involve the workplace as it presents the ideal environment for the individual to develop self-efficacy around tasks or equipment which may have caused the original injury, or are perceived to be too difficult to undertake. To ensure safety and confidence in managing the RTW and its longevity, the clinician will potentially need to train the patient in safe body mechanics, work-rest schedules, job or task modifications or workstation redesign.

Many patients will require a structured RTW plan developed in conjunction with the employer, treating medical officer and physiotherapist detailing the days, hours and duties the individual should complete. All parties provide written agreement to the plan which is monitored on a weekly basis and is in essence a 'work contract'.

### 4. Skills required for effective self-management

An effective self-manager is someone who: 1) Has knowledge of their condition; 2) Follows a care plan developed with their health professionals; 3) Actively participates in decision making with health professionals; 4) Monitors and manages the signs and symptoms of their condition; 5) Manages the impact of the condition on their physical, emotional and social life; 6) Adopts lifestyle and behaviours that promote health; and 7) Has confidence, access and the ability to use support services (National Health Priority Action Council, 2006, Australian Physiotherapy Council, 2006). Achieving the competencies of an effective self-manager is through the adoption of five core skills: problem-solving, decision making, resource utilisation, forming a patient/healthcare provider relationship, and taking action (Von Kroff et al., 1997; Lorig and Holman, 2003). Table 2 presents some practical tips which the clinician could use to incorporate SM into practice, which can also be used as a self-assessment checklist to determine the extent to which SM is practiced. The appendix contains two vignettes as examples of how this approach can work. Alternatively, the 'Partners in Health Scale' can be used as a quick generic self-report assessment of the use of SM in practice (Battersby et al., 2003).

#### 4.1. Facilitate problem solving

For the individual, skill acquisition takes time, as it does also for the clinician trying to facilitate SM behaviours in the patient. To engage the patient in problem solving, a problem needs to be identified, solutions proposed, strategies for implementation made and evaluated. While the majority of patients will report pain as one of their problems, questioning should also cover limitations to full participation in work or leisure activities. A useful tool for the clinician to use is the Obstacles to Return-to-work questionnaire (Marhold et al., 2002) which provides information about the patient's perceptions of physical demands, support at work, job satisfaction and expectations for return to work. Once a problem is identified, a list of at least three potential strategies to resolve the problem is required of the patient, taking suggestions from the health care provider, family and friends. The clinician can offer a range of options if necessary, from which the patient can select one that best suits their lifestyle.

Common barriers for RTW reported by patients and possible solutions are listed in Table 3. For example, a patient may identify that routine inspections at work require them to walk for 30 min twice a day, but find this too difficult due to chronic knee pain. Strategies brainstormed may include going for walks at home and gradually increasing the time walked; using pain relieving medication prior to inspections at work; using heat or ice for pain relief after the inspections at work. Brainstorming results in the decision that the first and third options are best as medication may impair cognitive function; sitting for 20 min with a heat pack at work may be a short term solution while increasing their walking tolerance with a graded walking program at home. It is interesting to note that when problem solving skills were added to graded activity for patients with chronic low back pain, 50% fewer sick days and better work retention was reported the year following the intervention (van den Hout et al., 2003).

**Table 2**

Practical tips for clinicians to incorporate SM into practice when managing patients with a chronic musculoskeletal condition.

Tip	How
1. Establish Rapport	Invite patient to bring a partner, relative or friend; Converse in lay language; Ask the patient to prioritize their problems; Seek permission from patient to contact significant other stakeholders such as workplace supervisor or rehabilitation coordinator.
2. Adopt an active listening communication style	Sometimes referred to the 'Ask-Tell-Ask' process, in which the clinician asks the patient what they want to know, proceeds to explain it and then says "I have provided a lot of information about your condition. To make sure I have explained it clearly, can you tell me your understanding of what was said?"
3. Provide information	The type and format of information provided will depend on the needs of the patient and whether they are 'ready' to receive the information. The patient may express concern that work is harmful or returning to work before 100% will result in recurrence of injury. The patient may be unaware of the support available to assist them at work such as ergonomic interventions, lifting aids or, specially designed tools. The clinician can recommend a worksite assessment during which time work modifications can be recommended.
4. Develop an action plan	This is done in collaboration with the patient and consistent with their identified problems and goals. The goals must be important to the individual and they should be relatively confident of achieving it. The action plan may be a structured physical activity program to enhance fitness in preparation for RTW. Another type of action plan is a modified duties plan which is organised between the health care provider, employer and injured worker. The written plan clearly outlines hours, duties, number and duration of breaks and is signed by all parties as evidence of agreement.
5. Goals of treatment are: Measureable Action based Realistic Time Framed	Specific goals set are realistic, can be achieved within the following week and are measurable will be more likely to lead to success.
6. Use a non-judgemental approach	Avoid attributing patient non-compliance with recommended interventions to lack of treatment effect. Motivational interviewing is one approach that explicitly avoids contradicting or judging a patient.
7. Facilitate problem solving	Help patient to learn the 4 step process of problem identification, generating possible solutions, implementing one solution based on confidence in achieving it, and evaluating the effectiveness of the solution.
8. Promote self-efficacy	Mastery of SM skills is encouraged when the clinician praises achievements. Friends and family significant to the patient should also be cued to praise success, even small ones. Initiating too many changes at once may result in poor adherence and the patient may become discouraged. An example would be to prescribe two exercises (rather than 10) initially so that the patient may experience success in completing them and positive therapeutic benefits. With success comes mastery and confidence.
9. Link patients with resources	Patients who report being unaware of their entitlements or fear job loss secondary to being on compensation should be encouraged to maintain communication with their case manager and employer. Maintaining regular communication with the employer will result in faster return to work and greater satisfaction with the rehabilitation process. Patients can be referred to support groups or community resources to help them achieve their goals or gain the support needed to manage their condition. For example, group exercise programs, not-for-profit organisations which provide support and resources for people dealing with the consequences of chronic pain (Chronic Pain Australia, <a href="http://www.chronicpinaustralia.org.au/">http://www.chronicpinaustralia.org.au/</a> ); evidenced based information about return to work for employees, employers, health providers and insurers ( <a href="http://www.rtwknowledge.org/">http://www.rtwknowledge.org/</a> )
10. Encourage patient to maintain personal health records	This should record the various health providers they are consulting and their contact details; appointments and medications. Such a record will enhance communication between providers and help the patient keep track of appointments.
11. Active follow up	Follow up appointments are made with the patient or alternatively, an 'open-line' of communication is available to the patient should they need support. If a modified or alternate duties plan is implemented, it is essential that it is monitored on a weekly basis and altered as required.

Source: Chronic Pain Australia, unfunded, volunteer, not-for-profit. There is an online forum and a free monthly e-bulletin that people can subscribe to. Web address is: <http://www.chronicpinaustralia.org.au/> There is also a Facebook page: <http://www.facebook.com/ChronicPainAustralia>.

**Table 3**  
Barriers to staying at work or returning to work after absence.

Barrier	Strategy
Pain	Patients can be taught active coping strategies such as: physical activity or exercises; reassurance that symptoms may increase initially on return to work; pacing of activities, taking regular breaks, asking for assistance, muscle relaxations, pleasant activity scheduling and adhering to the RTW plan.
Fear of re-injury	Reassure the patient this is a common fear but that adhering to the RTW plan and reporting any exacerbations should reduce the likelihood of re-injury.
Depression, anxiety or stigma associated with injury or being on compensation	Encourage the patient to discuss these issues with their medical provider or psychologist. Remind them that working is helpful to assist recovery from these issues by remaining active and engaged.
Fatigue or lack of job fitness	Participate in a progressive daily exercise regime; planning of activities while adhering to work-rest schedules.
Negative thoughts	Help the patient turn negative thoughts into positive. E.g.: 'There are no suitable duties', could change to, 'I will talk to my supervisor/case manager/doctor about organising some suitable duties'; or 'My injury is invisible, so work colleagues will think I'm making it up or exaggerating it', could change to, 'It is true that some injuries are not visible, like headaches, but it doesn't mean that I am exaggerating the problem'
Task or workplace specific barriers	The patient maybe have a physically demanding job or work alone and unable to request assistance if needed. A return to work plan may be required to ensure the patient is working within their limitations and has access to assistance if necessary. It is important for the patient to communicate these concerns to their supervisor.
Lack of self-efficacy in performing usual duties placing job at risk	Give the patient opportunities and activities during the treatment time to practise some of the tasks the patient will be required to do at work. It may be possible to mimic very closely the tasks the worker is required to perform. Supervision and positive reinforcement will give them confidence to manage independently.

#### 4.2. Provide support for decision making

Clinicians can assist patients in making decisions that impact their day to day functioning and management of their chronic condition. The patient should be encouraged to prioritise solutions by writing them down in order from most likely to be achieved to least likely and working through the list to arrive at the first option to try. It is important for the clinician to let the patient know that several solutions (and attempts) may need to be tried before the best option is found. The patient should not be blamed for failed attempts but rather encouraged to reflect on the experience so they can recognise what worked well or not. A discarded solution may need to be reconsidered at a future time when their lifestyle and/or condition have changed. This trial and error process is necessary for the patient to 'take control' of their condition and will assist them in learning to manage their condition. Through this process, patients learn to manage an exacerbation of their condition whether it be through rest, exercise, activity pacing, medication or visits to a health care professional.

#### 4.3. Assist patients to locate and utilise resources

An important skill for anyone with a chronic condition is to locate and utilize available resources. It is important the clinician encourages the patient to initiate these solutions (rather than telling them) to enhance the sense of control the patient feels they have over their condition. The clinician makes a file note of the patient's 'homework' for the following week so it can be discussed at the next visit. For example, a common problem reported by people receiving workers' compensation is not understanding their entitlements (Roberts-Yates, 2003) and how to improve their job seeking skills. The clinician can encourage the worker to: seek information from the workers' compensation insurer's website(s); make an appointment with the insurer's case manager; or talk with the onsite rehabilitation officer or human resource staff.

#### 4.4. Develop a strong partnership with the patient

There is emerging research in support of a strong therapeutic bond between patient and clinician. A recent review reported that a positive bond is associated with treatment satisfaction in patients with MSD including chronic low back pain and improved physical function in geriatric patients (Hall et al., 2010). This bond can be established through developing rapport with the patient by asking them to identify and prioritise their problems, expressing empathy, mutual agreement on the goals of treatment and the intervention or asking the patient to bring a relative to the next visit (McGowan, 2012).

#### 4.5. Make action plans to increase self-efficacy

The purpose of an action plan is to increase self-efficacy (Bodenheimer et al., 2007) with evidence suggesting that goal setting and making action plans can result in increased exercise and weight loss; healthy behaviours and better clinical outcomes (Marks et al., 2005) and even faster RTW outcomes (Sullivan and Stanish, 2003; Sullivan et al., 2005). In order to encourage behaviour change, it is important to start with small achievable successes that lead to more adventurous and complex actions. Any decisions taken for action need to be short-term (one or two weeks), very specific and achievable. In the example of the patient unable to walk for 30 min due to pain, the patient is asked to nominate the option that they are moderately confident in achieving on a 0–10 scale with 0 being unlikely and 10 being extremely confident (Lorig and Holman, 2003). The patient nominates walking in the morning to build tolerance in the first instance. An agreement is thus struck between clinician and patient and the action taken is "This week I will walk for 15 min on Monday, Wednesday and Friday". If the patient indicates a confidence level of less than 7/10, then it is necessary to modify the action or to return to the original list of options to find one that is more realistic to avoid failure.

## 5. Determining readiness for work, attitudes towards work and confidence for work

To ensure the skills which are important to enable return to work are adopted and practised, the patient needs to be ready to adopt the skills and behaviours. The outcome must be perceived as important enough to invest the time and effort (and pain), and the patient must feel there is at least some chance of success. Specifically, to maximise the success of SM for the patient, the clinician must establish the patient's readiness for RTW, how important work is in their life and how confident the patient is of returning to full duties and hours given their current level of pain and disability.

A patient's readiness to RTW can be established by using the Readiness to return to work scale (RRTW) (Franche et al., 2007) or simply by asking the patient how ready they feel. The 22-item RRTW scale applies a health behaviour change model to identify individual and social factors impacting on an individual's ability to initiate and maintain a return to work after an injury. To reduce the mismatch between when the patient perceives they are ready to undertake (some patients may feel pressured or obliged to return before ready) and what they are actually able to safely achieve, the clinician is advised to obtain the job description or job dictionary so that the patient's current function can be matched with the critical demands of the job. In this way, the clinician can accurately determine the patient's work capacity in the context of clinical measures or functional tests of the injured body part that mimic the patient's physical job demands. A visit to the worksite or a functional capacity evaluation would also be useful when the job demands are variable or unknown (Johnston et al., 2012b).

Determining the importance of work to an individual disabled for work may seem somewhat redundant as for most workers' compensation insurers, RTW is the primary goal of rehabilitation. However, a previous injury, concomitant stressful work environment, perceived heavy nature of work, conflict at work or dissatisfaction with work may be barriers to work and recovery from injury (Shaw et al., 2011). In the case of work-related injuries when liability is queried, the patient's attitude and beliefs about the importance of work assume greater significance. For example, the patient who believes work caused their injury will be reluctant to return to the same job if they believe the hazardous activity remains. The clinician can determine the importance of work to the patient by asking "all things considered, how satisfied are you with your job?" Another way of assessing the worker's perceptions of work is to administer the 7-item work APGAR scale (Bigos et al., 1991). The SM skills of problem solving, decision making and making an action plan can be utilised to address potential barriers for a positive RTW.

The patient's confidence or self-efficacy in returning to work is strongly linked with return to usual activities and reduction in pain severity (Cole et al., 2002; Fadyl and McPherson, 2008; Iles et al., 2008; Brouwer et al., 2009). The recently developed 10-item self-efficacy for RTW scale can be used to assist with making decisions about a patient's ability to cope with work, the patient's confidence to obtain help from supervisor and co-workers and to cope with pain (Brouwer et al., 2010). Alternately, simply asking the patient "if you were to return to work today, how confident are you that you would be able to manage the demands of your job?" may yield important insight into the nature of tasks the patient is required to complete. In the context of the clinician incorporating SM into patients' rehabilitation from chronic MSD, positive changes in the patient's responses to the self-efficacy for RTW scale (Brouwer et al., 2010) and/or the above questions over the course of the rehabilitation process may also prove to be a good indicator of the patient adopting SM behaviours and the resultant general improvements in self-efficacy.

## 6. Conclusion

There is a worldwide trend towards promoting self-management for individuals with chronic conditions such as arthritis, diabetes and chronic pain. Central to this movement is a shift from reliance on external health professionals to adopting an active internal approach to illness and disability management. As work is important for health and well-being, self-management strategies to facilitate remaining at work with a chronic musculoskeletal condition or returning to work after a musculoskeletal injury have attracted research interest. Primary care professionals such as physiotherapists are ideally situated to influence the patient to take an active role in the rehabilitation process. Clinicians should ensure they have the necessary skills to facilitate positive SM behaviours to empower individuals with chronic conditions to remain at work or return to work.

## Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.math.2013.04.001>.

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