Psychological approaches for the nursing management of chronic pain: part 2

Clifford Richardson MSc, PhD, RGN
Lecturer, School of Nursing, Midwifery and Social work, University of Manchester, South Piccadilly, Manchester, UK

Nicola Adams BSc, MCSP, PhD
Reader in Health and Social Care, Head of the Centre for Research in Health Care, Faculty of Health and Applied Social Sciences, Liverpool John Moores University, Liverpool, UK

Helen Poole BSc, PhD
Senior Lecturer, Faculty of Science, School of Psychology, Liverpool John Moores University, Liverpool, UK

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Correspondence:
Nicola Adams
Reader in Health and Social Care
Head of the Centre for Research in Health Care
Faculty of Health and Applied Social Sciences
Liverpool John Moores University
70 Great Crosshall Street
Liverpool L3 2AB
UK
Telephone: 0151 231 4056
E-mail: n.adams@livjm.ac.uk


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Aims and objectives. The aim of this article was to present the ways that nurses can integrate psychological approaches into their management of chronic pain conditions using a biopsychosocial framework. Communication, the importance of the patient-practitioner interaction, the role of education and provision of information, reassurance and reduction of anxiety and the use of coping strategies training in the management of chronic pain are reviewed alongside the key skills of nursing.

Background. This is the second part of a two-part article. Part 1 was a discussion of psychosocial factors associated with chronic pain conditions and the psychological approaches used in the management of these conditions.

Conclusions. It is identified that key nursing skills often equate to the requirements of the psychological approaches, therefore specific techniques from a cognitive-behavioural framework can be readily applied, integrated and used by nurses in the management of chronic pain conditions.

Relevance to clinical practice. Commonly utilized nursing skills are similar to those required for cognitive-behavioural therapy. It is reasonable to assume therefore that nurses can and should be involved in effectively managing the psychological aspects associated with chronic pain conditions.

Key words: chronic pain, nursing, psychological approaches

Introduction

Part 1 of this two-part article (Adams et al. 2005) introduced psychological approaches used in the management of chronic pain. The aim of this article was to present ways that nurses may integrate psychological methods into their management of chronic pain conditions within a biopsychosocial framework. The focus will be on the key skills of nursing which equate to the requirements of these approaches.

According to the NMC (2002), key skills of nursing include, the use of effective communication, the assessment, planning, intervention and evaluation of clients physical, psychological, social and spiritual needs and to participate in inter-professional working. Nurses are well placed to apply psychological approaches to enable patients to cope more effectively with pain, its associated disability and the consequent reduced quality of life, because they already use many of the techniques in other areas. For instance,
self-management skills used by nurses as part of a health promotion role particularly in chronic conditions such as arthritis, chronic obstructive airways disease or cancer, where there is no cure, include the provision of support, empathy, reassurance and encouragement. These are all common and necessary for nurse–patient communication and to all psychological approaches to care for good management of chronic pain (as identified in part 1).

Following the pattern set in part 1, each aspect of treatment will be individually discussed starting with patient–practitioner interaction and continuing with psychological methods frequently used to manage chronic pain. The current and potential role of the nurse is highlighted throughout.

**Patient–practitioner interaction**

There are a number of psychological factors in patient–practitioner interactions that may influence the process and outcomes of treatment. These include the attachment between the partners and the communication processes. The attachment and collaboration between patient and practitioner is an important element in any therapeutic process (Freshwater 2002).

Good communication includes the ability to give sound advice, answer questions, solve problems, inspire confidence, actively contribute to discussion and pass on relevant information to other parties involved in their care (Bailey & Wilkinson 1998) and is therefore an integral part of the patient–practitioner relationship (Raue & Goldfried 1997). Communication involves verbal and non-verbal behaviours, such as the provision of information, active listening, empathy and the use of touch, which are as important as the treatment itself (Klaber Moffett & Richardson 1995). A practitioner using good communication skills and empathy is therefore a powerful mediator of health outcome and compliance (Fitzpatrick 1991), and influences patient satisfaction or dissatisfaction with treatment (Audit Commission 1993, Evans et al. 2004) and who stays in treatment (Skevington 1995).

The patient–practitioner interaction is therefore a very important aspect of the psychological management of chronic illness such as chronic pain and nurses have been at the forefront of the drive towards improving communication within the therapeutic relationship (Muetzel 1988, McMahon 1991, Comer 1997, Freshwater 2002). As nurses have the longest patient contact time (McCaffery & Beebe 1989) and concentrate on communication skills (NMC 2002), they are well placed to use the patient–practitioner relationship to treat chronic pain patients.

**Psychological approaches**

The following sections outline the main approaches that are used in the psychological management of chronic pain. The application of nursing skills for each therapy will be highlighted.

**Cognitive-behavioural therapy (CBT)**

This approach is the most widely used in pain management and forms the basis for many pain management programmes (PMP) in the UK (Peat et al. 2001). The use of CBT for pain management is supported by systematic review and meta-analysis (Morley et al. 1999, Eccleston et al. 2002). Interventions which influence patients’ cognitions and behaviours are many and varied but include, education, reassurance, coping strategies training, stress management, cognitive restructuring, distraction, problem solving, changing pain behaviours, increasing physical activity, goal setting and pacing. A CBT programme may comprise some or all of these interventions, making comparisons between programmes difficult especially when the components of individual programmes are not made explicit.

The approach offers a contemporary biopsychosocial and holistic method of pain management within the framework of conventional medical services and can be integrated within the repertoire of nurses as many of the constituent interventions are wholly or partially used by nurses in other areas of care already. The following sections expand upon individual aspects of CBT-based programmes and discuss nursing skills in relation to each component. Overall it becomes evident that nurses have the necessary skills to utilize CBT effectively (Wells-Federman et al. 2002).

**Education and the provision of information**

Information about the nature and course of illnesses, treatment plans, and the process and aftereffects of diagnostic and therapeutic procedures is essential for patients. Information can reduce anxiety and distress and increase coping abilities (Field & Adams 2001). Adherence to treatment is related to the level of appropriate information provided (Shuttleworth 2004) and information can also enhance self-efficacy and the ability to develop coping skills (Scudds & Li 1997, Soares & Grossi 2002).

Education through information can affect patients’ ability to self-manage their condition when at home and may also enhance feelings of control over pain. An approach using written material and oral information appears to be the most successful means of provision (Shuldham 1999); however, all
forms require an evaluation of the patient understanding to be successful (Arnstein 2004). Support and self-help groups are also a valuable source of information, support and advice and are beneficial for skill maintenance and support with an ongoing problem (Strong 1996).

Nurses have been at the forefront of the drive towards delivering information about pain to patients (Hayward 1975, Boore 1978, Field & Adams 2001) and employ various techniques including working alongside self-help groups in order to facilitate and improve patient education (Field & Adams 2001). This makes the nurse an important contributor to chronic pain management.

Reassurance and reduction of anxiety

Chronic pain patients have a tendency to seek reassurance and many fear that their condition is due to underlying pathology. Many express fears about causing damage during movement or exercise, and believe that more investigations are needed. It is important that therapists do not reinforce these beliefs and unwittingly encourage excessive disability and a passive approach by persistently performing investigations (Pither & Nicholas 1991, Kouyanou et al. 1998). This anxiety is natural; however, pain management often relies more on reassurance than further medical investigation (Edellmann 1992).

Various studies have suggested that a reduction in anxiety results in reduced pain, distress, reduced analgesia consumption and accelerated recovery (Hayward 1975, Boore 1978, Shuldham 1999). Anxiety may be reduced using information and providing reassurance; however, with chronic pain, cognitive-behavioural techniques such as problem solving, goal setting and developing positive coping strategies have also been found to be helpful (Harding & Williams 1995, Scudds & Li 1997).

Alleviating anxiety is identified as a fundamental aspect of nursing across all specialties (Long et al. 1993, Thompson et al. 1997, Perry & Potter 2002); hence, these skills can be readily applied by nurses, to chronic pain patients.

Coping strategies training

The use of coping skills training for patients with pain is widespread in clinical practice; however, little is known of its efficacy because evaluations have not focused on individual components. Most studies focus on the effectiveness of combining various coping skills and have been drawn from an experimental pain paradigm (Tan 1982, Fernandez & Turk 1989) using healthy subjects. They may not therefore be directly comparable with a clinical situation.

In terms of nursing, coping skills training is used in most acute and rehabilitation settings and is therefore a skill which can readily be transferred to pain management. There are a number of coping strategies skills training techniques that can be employed in chronic pain, though none have yet been found to be superior over another in promoting health and functioning (McCracken & Eccleston 2003). Such strategies typically involve techniques such as stress management, relaxation, cognitive re-structuring, distraction, problem solving, exercise, goal setting and pacing. These are now presented in turn.

Stress management

Stress management is a frequently used psychosocial intervention in chronic illness and pain reduction programmes (Levenson 1992), and despite arguments about whether it is CBT or a psychophysiological approach, it appears in many CBT programmes. Various theories and mechanisms linking psychological factors to physical disorders have been proposed but are beyond the scope of this discussion. Readers interested in this aspect are recommended to read Cohen and Rodriguez (1995) and McCubbin et al. (1991). Prolonged stress can also have psychological sequelae, such as anxiety and depression, which can negatively influence the experience of pain. Further, patients with high pain intensity and high somatic awareness have been found to report greatest affective distress (Crombez et al. 1998a).

Techniques to manage stress include patient education and psychophysiological self-control training, e.g. relaxation. There are few studies that document the efficacy of comprehensive stress management programme; however, in terms of chronic pain management, nurses using their anxiety reduction skills will inevitably influence stress and assist in its management.

Relaxation

As stated in part 1 of this two-part article, there are three main models postulated to explain the mechanism by which relaxation can assist in pain alleviation. The reflex-spasm model and the stress-causality model (Collins et al. 1982) both conceptualize the pain relief mechanism in physiological terms, while the cognitive factors models (Flor et al. 1983) views pain relief in psychological terms. Flor et al. (1983) identified relaxation as an important coping skill hence it is often used as part of cognitive-behavioural programmes.

The principal value of relaxation appears to be in mediating a subjective sense of well-being. This can be produced by progressive muscle relaxation (Jacobson 1938, Bernstein
& Borkovec 1973, Bernstein & Given 1984, Danton et al. 1984) which involves systematically contracting and relaxing various muscle groups throughout the body.

Methodological problems within relaxation studies make it difficult to assess its therapeutic effectiveness (McQuay et al. 1997). Additionally studies often rely on subjective self-assessments as the principal outcome measure, despite evidence demonstrating a lack of correlation between self-report measures and objective outcomes (Taylor & Lee 1991, Thomas et al. 2004). Further, in studies where objective measures were used, progressive relaxation was used in conjunction with other techniques, making it hard to examine its differential effects (Carey & Burish 1987). Despite the lack of scientific evidence for the efficacy of relaxation, it continues to be frequently used by practitioners especially nurses within the British NHS for a range of conditions including pain management. As nurses are known to be using these techniques it is reasonable to assume that the basis of these practices incorporates key nursing skills especially communication, assessment and evaluation.

Cognitive restructuring

Cognitive restructuring identifies patterns of maladaptive coping behaviour. It teaches the identification and elimination of maladaptive cognitions and passive coping style, whilst encouraging active coping through realistic appraisal of events (Brown & Nicassio 1987). Self-efficacy can also be maximized by encouraging partners and families to reduce their solicitousness. Cognitive restructuring is an essential component of chronic pain treatment, especially for those individuals who demonstrate higher than average levels of catastrophizing which is regarded as the most problematic passive coping style (Sullivan et al. 2001). Nurses are involved in cognitive restructuring in areas such as cardiac rehabilitation where beliefs and knowledge about the heart and factors associated with heart disease are challenged, so its use could be transferred to the management of chronic pain. In this case nurses would educate about anatomy and physiology, challenge beliefs/values about pain and encourage adaptive coping styles.

Distraction

Distraction is when attention is focused away from pain. Techniques using mental imagery or slow rhythmic breathing are often used to distract (Adams 2004). These may increase pain tolerance and decrease perceived pain intensity, as pain ceases to be the focus of attention. However, when the distraction stops, pain returns as the central focus of awareness and becomes accompanied by fatigue and irritability (O’Hara 1996). Melzack et al. (1980) found that distraction techniques were only effective if pain intensity was constant or increased slowly. Eccleston et al. (1997) suggested that where there is high pain intensity accompanied by a high somatic awareness, cognitive coping strategies based on distraction might be difficult to apply. Where pain is less intense, however, distraction may be an effective strategy. Nurses regularly use distraction to help patients through painful or distressing procedures and this skill could be transferred to chronic pain management, for instance, by teaching patients to use techniques like guided imagery to distract focus from their pain.

Problem solving

Problem-solving skills are an essential part of chronic pain management. Often patients with chronic pain have poor problem-solving abilities, becoming easily stressed and overwhelmed by everyday activities. Negative attitudes and low self-esteem often result. Patients need help and instruction in selecting and prioritizing a realistic set of goals for rehabilitation using the following procedure (Adams 2004):

1. Define the problem or stressor;
2. Set realistic goals;
3. Examine alternatives;
4. Consider other perspectives and motives;
5. Select an appropriate strategy;
6. Delineate necessary steps to reach a goal;
7. Reward behaviour for having tried.

In terms of rehabilitation this could be performing either physical or functional activities such as cooking a meal, going shopping and/or social and recreational activities. It is important that patients are able to identify their priorities, and what is preventing them from doing particular activities (physical and psychological). Within rehabilitation units (e.g. stroke units or following amputation) nurses regularly break activities down into smaller problems and identify achievable steps (or goals) to solve these problems. Problem solving is at the core of the nursing process and as such nurses could transfer this skill to patients with chronic pain.

Changing pain behaviours

In patients with pain it is important to reinforce ‘well’ or adaptive behaviours and not to respond over solicitously to pain behaviours such as exaggerated staggering and grinning. Patients often avoid activity for fear of its consequences, and fear of pain is known to be a better predictor of avoidance than pain severity or physical pathology (Crombez
Patients with pain are encouraged to participate in controlled activity to increase their functional abilities (Waddell et al. 1993). This is something that nurses do on a daily basis in both acute and rehabilitation settings.

Additionally the nurse could use cognitive strategies to allow patients to re-interpret any pain caused by unaccustomed physical activity. Patients are encouraged to increase functional activity, whilst pain behaviours such as exaggerated facial expression of pain or excessive guarding are not reinforced (Adams 2004). Patients in pain are told to interpret pain during daily activity as temporary discomfort caused by stretching little-used muscles and ligaments, rather than as a serious symptom. Positive reinforcement is essential and may be achieved by setting goals for the patient to achieve and maintain whilst incorporating an element of pacing in order to minimize the potential for doing too much. These are important concepts within all areas of rehabilitation and are often utilized by nurses. Transferring them to the nursing management of chronic pain would therefore be relatively easy.

**Increasing physical and functional activity: the role of exercise**

Exercise is an important part of many PMP. It has been shown to be effective in the management of conditions such as arthritis, low back pain, chronic fatigue syndrome and fibromyalgia, where it may assist in functional rehabilitation of patients by improving aerobic conditioning and increasing strength and flexibility (Sim & Adams 2002). Exercise is often used in functional rehabilitation programmes for chronic low back pain (CLBP), as these patients often avoid activity because of fear of pain with consequent physical deconditioning and loss of strength and flexibility. Aerobic exercise has been found to produce systematic increases in both exercise levels and expectancies of exercise capabilities whilst reducing worry and concern about exercising (Waddell et al. 1993).

A systematic review carried out for the Cochrane database found some conflicting evidence on the effectiveness of exercise therapy (van Tulder et al. 2000). When compared with inactive treatments for CLBP, exercise was found not to affect pain intensity, return to normal activities and return to work. Exercise therapy was found to be more effective than usual care by the general practitioner. The conflict may be a result of some of the inactive therapies having some efficacy. Overall when the trials using traditional physiotherapy were included, exercise therapy was found to help people with low back pain to return to normal activities and work.

Nurses have used their nurse–patient relationship skills to overcome fear of activity within cardiac rehabilitation programmes and could transfer such skills to the chronic pain field to reduce fear of movement, overcome inactivity and increase exercise.

**Goal setting**

Chronic pain patients often have cycles of over- and under-activity. They carry out an activity until the pain stops them and this pain exacerbation then forces them into a period of rest and medication use. Commonly this leads to feelings of frustration and lowered mood. This reinforces an avoidance method of coping leading to reduced activity levels and consequent physical deconditioning and loss of flexibility and strength. As a consequence activity cycles become shorter and periods of rest become longer. Goal setting and pacing are techniques which can be used to break this cycle (Adams 2004).

Individuals are guided to work towards a goal in a planned and systematic way. Goal setting in the context of pain management is not dependent on the level of pain. The target or goal should be set at a low level initially, i.e. at a level that is achievable on a good or bad day. This should gradually be increased as tolerance and practice improve the level of function required for the activity. The next stage is only embarked upon when the previous stage becomes easy to achieve regardless of the level of the pain (O’Hara 1996). In this way fitness, stamina and confidence improve over a period of time.

For many the feeling of achievement is a reward but at times social reinforcement by friends, family or practitioners is helpful and the presence of another individual doing a similar activity successfully can also be effective. This is one of the benefits of group rather than individual participation in PMP (Adams 2004). Goal setting and problem solving are aspects of the nursing process which forms the framework used by nurses to care for patients. This means that nurses can readily participate in this activity with pain patients.

**Pacing**

Pacing refers to how patients learn to pace activities so that they may function without becoming overly tired. Prioritizing and planning are important in pacing the activity to ensure that a cycle of over- and under-activity does not occur. The patient selects activities that they carry out frequently and works out a baseline which he or she should be able to carry out for each activity, and every day regardless of other circumstances. The individual then increases the baseline at his or her own pace. The baseline must be realistic and should be set at an achievable level to fit in with the individual’s lifestyle.
These are principles that are used within nursing, for example, following surgery and hence with minor modifications and used alongside goal setting, pacing could be effectively implemented by nurses within pain management.

Conclusions

The techniques and components of CBT are often used by nurses as part of psychosocial care and rehabilitation for various chronic conditions. Nurses routinely educate patients, teach self-management skills and address psychosocial aspects of care as part of their management of patients for a variety of chronic conditions often as part of a multidisciplinary team. The importance of the nurse–patient interaction is paramount in teaching self-management skills and providing support, empathy, reassurance and encouragement. Communication is an integral part of this relationship and is the most significant factor influencing patient satisfaction or dissatisfaction with treatment.

This paper asserts that nurses are therefore capable of applying psychological approaches to chronic pain management. Whilst it is understood that traditionally nurses are not specifically trained in cognitive-behavioural principles, this approach comprises a range of components and techniques which are in common usage within nursing. These skills can be readily applied, integrated and used to help nurses to manage patients with chronic pain conditions.

Contributions

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References

C Richardson et al.


