

Rheumatology Occupational Therapy-led Fibromyalgia Self-Management Education using Motivational Interviewing and Mindfulness Based Cognitive Therapy: A New Approach

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Abstract

Fibromyalgia is a chronic musculoskeletal pain syndrome, which significantly affects patients' quality of life. EULAR revised recommendations for the management of Fibromyalgia suggests non-pharmacological therapies and patient education should be treatment priority. This puts Rheumatology Occupational Therapists in an important role on the patients' journey to self-management. This article reports on a new treatment approach in Rheumatology Occupational Therapy-led Fibromyalgia Self-Management Education (FSME), which incorporates Motivational Interviewing, and Mindfulness Based Cognitive Therapy approaches within the Canadian Practice Process Framework. The Fibromyalgia self-management education programme was devised and delivered by an Advanced Clinical Specialist Occupational Therapist using a comprehensive literature review of the evidence base. The evaluation of the self-management education programme included the Revised Fibromyalgia Impact Questionnaire as a condition specific outcome measure, the 5 Facet Mindfulness Questionnaire-Short Form to measure the effectiveness of the Mindfulness training on patient's thought patterns, and the Canadian Occupational Performance Measure to evaluate the impact of the occupational therapy intervention on treatment goals. Preliminary results of the clinical practice evaluation suggests that Rheumatology Occupational Therapy-led FSME is highly effective in achieving health behaviour change, shift in patients' awareness and reducing relapse in the long-term.

Introduction

Fibromyalgia is a condition with a complex disease etiology, but clinically it is characterised by the symptoms of chronic widespread pain, fatigue, sleep disturbances and cognitive dysfunction. The prevalence of Fibromyalgia is suggested to be between 2-5%, and much more common amongst women (Mas et al., 2008). Fibromyalgia greatly impacts on patients' quality of life (Segura-Jimenez et al., 2015) as it impairs both physical and psychological health and more often than not results in disability in daily activities (Consoli et al., 2012; Schaefer et al., 2016). Fibromyalgia differs fundamentally from other rheumatic or pain conditions, as it is not attributed to tissue damage or inflammation (Spaeth and Briley, 2009). Due to its intricate symptomology, Fibromyalgia requires a multi-disciplinary team (MDT) approach to management. The revised EULAR recommendations for the management of Fibromyalgia focus on non-pharmacological therapies and prioritises patient education (Macfarlane et al., 2016), and as such, rheumatology occupational therapists have an important role in Fibromyalgia patients' treatment journey and route to self-management.

Provision of patient education and self-management advice for people with rheumatic and musculoskeletal conditions has been long practised in rheumatology occupational therapy, to enable patients to care for themselves and attain functional independence. Occupational therapists understand that information based patient education does not result in behaviour change unless the education is delivered using cognitive behavioural approaches (Hammond, 2003). Indeed, the debilitating impact of Fibromyalgia symptoms, means there is a need for a significant shift in patient's perceptions, habits and behaviour to be able to employ self-management strategies such as increasing physical activity and taking positive steps to change negative spiralling thought processes. Although the evidence of self-management education programmes for people with Fibromyalgia is scarce (Musekamp et al., 2016), in the UK, a number of Fibromyalgia Self-Management Programmes (FSMP) are provided in the NHS, mostly as a group therapy and delivered by the wider MDT. Referrals to the MDT-led FSMP require patients to be ready and willing to make health behaviour and lifestyle changes to be able to learn to self-manage. Patients with complex needs and vulnerable psychological profiles (e.g. those with clinical anxiety and/or depression), require an individual approach as they may not be ready to make health behaviour changes or discuss their problems within a group environment.

Motivation is a key component in health behaviour change. It is needed to help sustain the patients' engagement with the therapy, and the adoption and long term maintenance of the positive thinking and behaviour patterns learned during the therapy. Motivational Interviewing (MI) is a patient-centred, evidence-based, directive counselling approach, used to facilitate and engage intrinsic motivation within patients in order to change health behaviour (Miller and Rollnick, 1992). MI advocates a

collaborative approach to problem solving, encouraging therapists to employ an empathetic and non-confrontational technique focused on reflective listening, to help patients explore and resolve their ambivalence about behaviour change (Treasure, 2004). There have been a number of randomised clinical trials (RCTs) to assess the effectiveness of MI in clinical practice, and it is suggested that, when using MI in a brief session of 15 minutes, six out of ten studies shown an effect, and having multiple sessions with patients further ensures the effectiveness of MI (Rubak et al., 2005).

Depression is also common among patients with Fibromyalgia, and can act as a stumbling block on the road to self-management as it results in lack of motivation, inability to focus and negative appraisal. Mindfulness-based Cognitive Therapy (MBCT) draws from Cognitive Behaviour Therapy (CBT) and traditional Mindfulness practices, which is described as a “*non-evaluative present-moment awareness*” (MacKenzie and Kocovski, 2016) and is recommended by the National Institute for Health and Care Excellence (NICE) as an effective treatment for people who suffer from recurrent episodes of depression. Evidence shows that MBCT can, on average, reduce the risk of relapse of recurrent depression by 43% (Williams et al., 2014). MBCT aims to help patients to disengage from negative thoughts and feelings by encouraging patients to experience thoughts as subjective and transient, and change the way they perceive them as permanent reality. There is a growing evidence-base including RCTs for use of MBCT on people with depression and other psychological disorders such as anxiety, stress-reduction, anger and acceptance. MBCT is also shown to improve chronic pain and functional limitations by decreasing pain catastrophisation and increasing patient self-efficacy to manage pain (Turner et al., 2016). There is also some evidence from small RCTs to suggest that mindfulness intervention may be of potential long-term benefit for female Fibromyalgia patients (Cash et al., 2015; Grossman et al., 2007). However, further research with larger trials needed to support the results of these small trials.

A New Approach to Occupational Therapy-led Self-Management Education in Fibromyalgia

A Rheumatology Occupational Therapy-led Fibromyalgia Self-Management Education (FSME) was devised following a comprehensive review of the literature to identify the evidence-base to support health behaviour change to help patients' shift to self-management. The FSME programme is delivered by an Advanced Clinical Specialist Occupational Therapist, trained in use of Motivational Interviewing (MI) and Mindfulness Based Cognitive Therapy (MBCT). Therefore, the FSME is conducted using MI techniques to challenge patient's ambivalence or resistance to change and help modify patterns of unhelpful thoughts/ behaviour that have become habitual. The MI also facilitates the development a collaborative relationship with patients, to restore their confidence in their ability to change health behaviours. MBCT is used to help patients to develop coping skills to manage pain, fatigue, stress and anxiety.

The Rheumatology Occupational Therapy-led, FSME programme is delivered over six 45-minute sessions and tailored to individual's needs. The 4-step approach consists:

Step 1. Assessment and Goal Setting

1.1. Initial assessment: The initial assessment based on the Canadian Model of Occupational Performance, identifies the individual's treatment needs, and problems are scored using the Canadian Occupational Performance Measure (COPM) (Law et al., 2005). In addition, the MI approach is used to elicit patient's concerns, examining the presence of ambivalence or resistance to change and build on the collaborative, person-centred therapeutic relationship with the patient. Patients also complete the FIQ-R as the condition specific outcome measure to allow the evaluation of the impact of Fibromyalgia on their daily function, and help to lead discussions to inform the goal setting process.

1.2. Setting patient-centred SMART goals: Goal setting process involves the review of the FIQ-R scores and a discussion between patient and the therapist using MI approach to help prioritise patient-centred, SMART treatment goals using COPM. The use of MI helps to identify stoic behaviour, denial of symptoms or abnormal illness behaviour, as well as the examination of personal values and expectations to help patients develop confidence in their ability to master behaviour change.

Step 2. The Fibromyalgia Self Management Education Delivery

2.1. *Condition specific patient education:* Patient education takes place as a one-to-one dialogue between the patient and the therapist, which starts by establishing the presence of any misinformation or pre-conditioned beliefs about Fibromyalgia. Then, the patient education is pitched at a level depending on patient's existing knowledge, educational attainment and cognitive ability, to avoid information overload, considering that most people with Fibromyalgia experience short-term memory problems and dyscognition (e.g. fibro fog). Patient education session involves sharing the evidence-based information on symptoms, diagnosis, course, mechanisms and frequency of Fibromyalgia, as well as a discussion around the available treatment options, recommendations for management and the MDT's role in treatment of Fibromyalgia in the NHS. Patients are also given the Arthritis Research UK Fibromyalgia booklet to take home to read it in their own time and informed about local and online support groups available to them.

2.2. Introduction to Mindfulness: Prior to the start of this component, the patient's current state of mindfulness is assessed using the five-factor structure of the Mindfulness Questionnaire Short-Form (FFMQ-SF) (Bohlmeijer et al., 2011). This

helps to identify the patient's opinion of their tendency to be mindful in their daily lives, and initiates a meaningful discussion between the patient and the therapist about the importance of mindfulness. Although mindfulness based therapies are becoming increasingly popular amongst health professionals, it is still a relatively new term for patients; therefore the use of FFMQ-SF self-assessment provides them with an opportunity to contextualise the meaning and relevance of this new terminology. This assessment is also repeated at the end of the therapy to measure whether a shift in mindfulness is achieved. Following self-assessment and a purposeful discussion using MI, patients are taught a set of mindfulness approaches such as the body scan meditation, using a guided practice and across a number of sessions. Patients are advised to practice these mindfulness approaches in their own time between the therapy sessions to develop coping skills. The guided practices are freely available online for patients to access and download from the Internet. Patients are provided with an information sheet to explain how to practice specific mindfulness meditations and URL links to access these free downloads. Other MBCT concepts such as 'self-compassion' and 'mindful eating' are also introduced in this session.

2.3. Pain management education: Pain management education is delivered using MI approach to elicit patient's beliefs and attitudes about pain. This session consists of explanation of the acute versus chronic pain, development and sustainment of pain, and relationships between pain catastrophisation and psychological disorders such as depression and anxiety. Attitudes to physical exercise and the effects of exercise on pain are also discussed, advising and motivating patients to increase their physical activity levels to cope with pain. Dealing with Physical and Emotional Discomfort is discussed within MBCT framework, and either "Soften, Soothe and Allow" (Neff and Gerner, 2013) or the "Five-Step Pain" Process (Burch, 2010) is explained to the patient, depending on the nature of pain, and experienced through a guided practice.

2.4. Fatigue and Sleep management: This session is also delivered using MI techniques to encourage health behaviour change towards pacing, energy conservation, and identification of drainers and energisers, self-sabotaging feelings and behaviours relating to fatigue using Socratic questioning and guided discovery (Hewlett et al., 2011). Sleep and rest is also discussed in the context of quality vs quantity and patients are advised on good sleep hygiene to help with their fatigue levels. The importance of exercise is discussed again in this session, explaining the links between fatigue and sedentary behaviour. As fatigue is strongly associated with stress, patients are motivated to identify personal stressors through MI and taught about the relaxation theory. Patients are also taught about how to deal with conflict using the principals of mindful communication (i.e. timing, listening, agenda-less-ness, confidence) and provided with the Arthritis Research UK Fatigue and Arthritis Booklet.

2.5. Dealing with Dyscognition (Fibro-fog): Patients with fibromyalgia often report forgetfulness and loss of mental clarity (Kravitz and Katz, 2015). Known as fibro-fog or dyscognition, this symptom involves difficulties with complex cognitive processes including memory, executive function, concentration and attention. The evidence base suggests that attention and working memory deficits are most prominent when patients have to cope with an additional source of distraction (Leavitt and Katz, 2006). In this session, types of cognitive tasks that are problematic for patients with fibromyalgia are discussed using MI, gently explaining the link between dyscognition and psychological factors, such as effort, depression, and fatigue (Suhr, 2003), as well as pain and medication (Dick et al., 2002).

2.6. Physical Activity/ Exercise Education: Exercise is identified as the most effective non-pharmacological intervention for management of Fibromyalgia (Macfarlane et al., 2016). During the FSME programme the negative impacts of sedentary lifestyle (Ellingson et al., 2012) are discussed with the patient using the MI process, and patients are motivated to increase their physical activity (e.g. parking further away from shops to walk longer, take steps rather than the lift at work) in everyday life, and encouraged to take up structured exercise such as swimming or yoga, at least three times a week to combat pain, fatigue and stress. The use of smart phone apps, activity monitors and wearable technologies are promoted amongst the younger generation of patients to track their physical activities such as walking, as an additional 1,000 steps/day was associated with improvement in self-reported physical function, physical impairment, and depressive symptoms, with no detrimental effect on pain intensity in people with Fibromyalgia (Kaleth et al., 2014).

Step 3. Monitor/ Modify treatment plan:

Patient's progress is continually monitored throughout the therapy process through active listening, observation and discussions with the patient at each stage of the programme, and goals and action plans are revised as necessary to ensure patients continue to fully engage in the programme and move forward with the therapy towards self-management.

Step 4. Evaluation and Discharge

4.1. Evaluation: Patients complete the condition specific self-rated assessment FIQ-R again at the end of the programme to evaluate the influence of the FSME on the overall impact of Fibromyalgia on their lives.

Alongside the FIQ-R, patients also complete the 5 Facet Mindfulness Questionnaire Short Form (FFMQ-SF) at the end of the programme. This measures five distinct but related aspects of mindfulness with 24 items

(Bohlmeijer et al., 2011) to evaluate the impact of the FSME on patient's levels of awareness. Patients rate their opinion of what is generally true for them in terms of their tendency to be mindful in their daily lives (Turner et al., 2016) using a Likert Scale (1= never or very rarely true to 5= very often or always true), with higher scores indicating higher levels of the mindfulness dimension. The reliability of the five-factor structure of the FFMQ-SF was confirmed in the fibromyalgia sample and shown to be highly sensitive to change, as well as reliable and a valid instrument (Bohlmeijer et al., 2011).

Following the evaluation of the patient's progress in the programme using the FIQ-R and FFMQ-SF, patients are also asked to re-score their level of performance and satisfaction with their performance within COPM to ensure their goals are achieved and treatment is completed, prior to discharge from the rheumatology occupational therapy.

4.2. Conclude treatment/ Discharge: The discharge process is also supported using MI to ensure the patient's long-term commitment to self-management, and decrease the risk of relapse. At this stage a referral to MDT and other relevant services are also considered if patient has on-going treatment needs (e.g. pharmacological pain management, physiotherapy, podiatry services, social services input).

Discussion

The Rheumatology Occupational Therapy-led Fibromyalgia Self Management Education (FSME) programme was developed as a result of the increased referrals received by the Outpatients Rheumatology Occupational Therapy team at the Mid Cheshire NHS Trust, and the need to deliver effective self-management education to patients with Fibromyalgia to reduce relapse, which in the long term will help to manage service demands and increase patient satisfaction. Having a standardised, evidence-based approach to delivering self-management education to patients with Fibromyalgia results in provision of high quality occupational therapy service and increased treatment efficacy. The standardised outcome measures used to quantify the results of the FSME programme, demonstrate high effectiveness in achieving health behaviour change, shift in patients' awareness and reducing relapse in the long-term. This suggests that patients are able to continue to self manage Fibromyalgia post discharge. However, these conclusions are based on the preliminary clinical practice evaluation, and are not based on empirical evidence. There is a need for a randomised controlled trial to test the effectiveness of this new approach to Fibromyalgia Self-Management Education against the usual occupational therapy practice to ascertain whether this approach is clinically more effective and cost-effective than the usual practice in the NHS.

This new approach to occupational therapy-led self-management education makes use of the MI and MBCT approaches to enhance the treatment delivery and improve patient outcomes; therefore it requires therapists to acquire specialised training. Although this may be perceived as a limitation to its widespread uptake in the NHS, it could also lead to up skilling rheumatology occupational therapists in delivering highly effective self-management education, which results in health behaviour change. Training programs for MI and MBCT are widely available in the UK in different formats to suit the needs of individual therapists at different stages of their careers. There are funding streams available to support the training needs of rheumatology health professionals in the UK, such as the British Health Professionals in Rheumatology (BHPR) 'education bursary' and College of Occupational Therapists (COT) Specialist Section- Rheumatology 'travel bursary', as budgetary restrictions in the NHS may result in limited funds to support continuous professional development.

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