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Cognitive behaviour therapy for common mental disorders in people with Multiple Sclerosis: A bench marking study

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ABSTRACT

Background: Mental health problems such as depression and anxiety are common in Multiple Sclerosis (MS) and are often under treated.
Aims: This paper reports on the clinical effectiveness of a cognitive behaviour therapy service for common mental disorders in people with MS and compares it to previous randomised controlled trials (RCTs) of cognitive behaviour therapy (CBT) in this population.
Methods: 49 patients were deemed appropriate for CBT and 29 accepted treatment. Assessments were completed at baseline and end of treatment and included the Hospital Anxiety & Depression Scale. Results in the form of a standardized effect of treatment were compared with five previous RCTs.
Results: The results from this clinical service indicated statistically significant outcomes with reductions in depression and anxiety. The uncontrolled effect size was large but inferior to those found in published RCTs.
Conclusions: Cognitive behaviour therapy is effective for people with MS in routine clinical practice. Possible limits on effectiveness include more liberal patient selection, lack of specificity in rating scales and heterogeneity of target problems. Given the high rates of distress in this population, routine psychological interventions within neurology services are justifiable. Future research should aim to maximise CBT in such settings.

Introduction

Multiple Sclerosis (MS) is a neuroinflammatory disorder commonly occurring in approximately 2.5 million individuals diagnosed with the condition around the world (Compston & Coles, 2002). It affects motor, visual, sensory, and autonomic symptoms with people affected by it experiencing a wide variety of symptoms such as loss of vision, cognitive impairment, impaired speech and swallowing, bladder and bowel dysfunction, pain, fatigue and difficulties with tolerating heat (Compston & Coles, 2008).

Mood changes are common in MS, especially depression and anxiety. The lifetime prevalence of depression is approximately 50% (Sadovnick, Eisen, & Ebers, 1991) and point prevalence rates range from 15 to 26% (Siegert & Abernathy, 2005) at least double that found in the general population. Anxiety affects between 16 and 45% of the MS population (Dahl, Stordal, Lydersen, & Midgard, 2009; Gay, Vrignaud, Garitte, & Meunier, 2010; Korostil & Feinstein, 2007; Marrie et al., 2009; Wood et al., 2012). More specifically, Korostil and Feinstein (2007) reported a prevalence rate of 10% in panic disorder, 8.6% in obsessive compulsive disorder and 18.6% in generalized anxiety disorder the latter being the most common. Anxiety is associated with a younger age of onset of disease, disease severity and fatigue (Wood et al, 2012). Wood et al. (2012) noted that anxiety, depression and fatigue tended to cluster together.

Such psychiatric morbidity is likely to be multi-factorial (Rickards, 2005) and medical treatments such as interferon and baclofen (Arnett, Barwick & Beeney 2008) may contribute to the picture. Arnett et al. (2008) suggest that depression develops through a combination of cerebral and immunological changes that interact with MS sequelae such as fatigue, physical disability, cognitive impairment and pain. These factors may then be moderated by other variables such as social support, coping style, stress and perceptions of self. From a cognitive-behavioural perspective, depression in MS

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may arise from, or be compounded by, a reduction in positively reinforcing activities and negative cognitions related to the inability to complete previously engaged in activities (Larcombe & Wilson, 1984). Anxiety may result as a consequence of uncertainty about how the disease may develop and fear of disability.

The consensus of opinion for the treatment of depression in MS favours pharmacological and psychotherapeutic methods in combination (Mohr & Goodkin, 1999). Mohr and Goodkin (1999) observed that depression in people with MS is generally responsive to treatment and that people who receive no treatment do not spontaneously recover from depression.

A meta-analysis of treatments for depression in MS by Mohr and Goodkin (1999) found five studies using different interventions. These consisted of insight-oriented therapies (Crawford & McIvor, 1985), stress management groups (Crawford & McIvor, 1985); Cognitive behaviour therapy (CBT) groups (Foley, Bedell, LaRocca, Scheinberg, & Reznikoff, 1987); and the anti-depressant desipramine (Schiffer & Wineman, 1990). The findings suggest that both anti-depressants and psychotherapy are effective (Mohr & Goodkin, 1999) with those receiving no treatment at all becoming more depressed over time. Psychotherapies that focus on developing coping skills (stress management groups and CBT) appear more effective than insight oriented modalities.

Further trials since the meta-analysis supported the use of selective serotonin reuptake inhibitor (SSRI) and tricyclic antidepressants for depressive symptomatology (Ehde et al., 2008; Mohr, Boudewyn, Goodkin, Bostrom, & Epstein, 2001). However, a more recent Cochrane review (Koch, Glazenborg, Uyttenboogaart, Mostert, & De Keyser, 2011) suggests that both Desipramine (Schiffer & Wineman, 1990) and Paroxetine (Ehde et al., 2008) may be effective in the short term but report that both trials had large numbers of patients lost to follow up and a large number of missing outcome measurements therefore resulting in bias. Furthermore, there were difficulties with tolerability of the medication by MS patients. A sensitivity analysis with best and worst case scenarios conducted within the review revealed a trend towards efficacy but neither medication was statistically significant in their effect. Koch et al. (2011) suggest this is due to the small number of patients in each trial and the large amount of missing data.

A Cochrane review of psychological interventions for Multiple Sclerosis (Thomas, Thomas, Hillier, Galvin, & Baker, 2006) included a mini review of interventions for use with people with depression. Three studies were identified. Two compared CBT to waiting list control conditions or treatment as usual (TAU) (Larcombe & Wilson, 1984; Mohr et al., 2000) and one compared CBT to antidepressants (Mohr et al., 2001). Both the CBT versus TAU studies revealed significant improvements in depression. However CBT versus antidepressants did not reveal a statistically significant improvement, but again the sample size was small (Mohr et al., 2001).

A further trial not mentioned in the Cochrane Review (Thomas et al, 2006) compared Telephone CBT (T-CBT) to Telephone Supportive Emotion Focused Therapy (T-SEFT) (Mohr et al., 2005). This trial found significant reductions in depression frequency and in the Hamilton Depression Rating Scale (Hamilton, 1960), but not in the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996).

More recent studies have also considered the use of computerised-CBT (CCBT) (Cooper et al., 2011). Cooper et al. (2011) completed an RCT of 24 participants comparing CCBT (Beating the Blues) to Treatment as Usual (TAU). The primary outcome was the Beck Depression Inventory-II (Beck et al., 1996) with the PHQ-9 (Spitzer, Kroenke & Williams, 1999) and GAD-7 (Spitzer, Kroenke, Williams, & Lowe, 2006) being used as secondary outcome measures. Results indicated a moderate effect size for the BDI-II, but there were difficulties with recruitment, participants found the BDI-II difficult to use and there was poor adherence to the CCBT programme with patients taking longer to complete the programme than anticipated.

Anxiety has been relatively neglected within the MS literature, with no studies to date focussing specifically on the treatment of anxiety disorders within this population group. There are some studies that have considered the treatment of co-morbid anxiety and depression (Nordin & Rorsman, 2012) through the use of Acceptance & Commitment Therapy (ACT) or CBT (Burns, Siddique, Fokuo, and Mohr (2010). Burns et al. (2010) completed a secondary analysis of the Mohr et al. (2005) paper in which participants received telephone CBT or telephone administered supportive emotion focused therapy and focused on anxiety disorders. They noted that anxiety disorders did not alter response to treatment. However, they observed that people with anxiety symptoms appeared to have worse depression symptoms and residual anxiety symptoms. They also concluded that patients with Generalized Anxiety Disorder (GAD) had increased anxiety symptoms at both baseline and follow-up, suggesting targeted additional interventions are required for people with GAD and co-morbid depression.

Nordin and Rorsman (2012) completed a randomised controlled trial comprising 20 people with MS who had elevated symptoms of anxiety and depression. The trial consisted of 5 sessions over 15 weeks of relaxation training or ACT. Relaxation training was shown to reduce anxiety symptoms and depression symptoms, whereas ACT patients had higher levels of acceptance at the end of therapy. However, the sample was small and therefore results have to be interpreted with caution.

The question remains as to whether it is possible to generalize outcomes from randomized controlled trials (RCTs) to clinical settings (Roth & Fonagy, 1996). Evidence suggests that results from RCTs can generalize to routine clinical settings (Weisz, Weersing & Henggler, 2005). However, it appears that many clinicians feel this is not the case, as they consider trial patients to be less severe and have less comorbidity than routine cases within clinical settings (Shafran et al., 2009). However, Shafran et al. (2009) observe that many trials do include patients with co-morbidity and that if managed flexibly then this co-morbidity need not affect treatment results.

Given the potential for discrepant results, criteria were developed by Shadish et al. (1997) and Shadish, Matt, Navarro, and Philips (2000) to assess whether studies carried out in routine clinical practice were clinically representative. These criteria include: representativeness of problems, the setting, how referrals are sourced, representativeness of therapists, structure of service, monitoring of treatment, problem heterogeneity and also pre-therapy training, ability to have therapy freedom and use of multiple techniques and flexibility of number of sessions.

These criteria enable researchers to benchmark therapy in clinical settings against RCTs. Benchmarking is a useful way of measuring effectiveness of clinical practice against clinical trials and can provide a direct statistical comparison of pre-post treatment scores (Minami, Serlin, Wampold, Kircher, & Brown, 2008). Within the mental health literature, benchmark studies have been produced for CBT of anxiety and depression (Westbrook & Kirk, 2005), chronic fatigue syndrome (Quarmby Rimes, Deale, Wessely & Chalder 2007), social phobia (Gaston, Abbott, Rapee, & Neary, 2006), panic (Stuart, Treat, & Wade, 2000; Wade, Treat, & Stuart, 1998), and post traumatic stress disorders (Gillespie, Duffy, Hackmann, & Clarke, 2002). These studies revealed comparable effect sizes between RCTs and outpatient clinics. To date there have been no benchmarking studies comparing results from RCTs of CBT for depression or anxiety in people with MS (or other neurological diseases) within routine clinical settings.

The aim of this study is to examine the effectiveness of CBT delivered within an MS clinical setting. The paper will report on