Journal of Affective Disorders 151 (2013) 500–505

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

Psychotherapy for depression: A randomized clinical trial comparing schema therapy and cognitive behavior therapy

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ARTICLE INFO

Article history:
Received 14 December 2011
Received in revised form
19 June 2013
Accepted 19 June 2013
Available online 17 July 2013

Keywords:
Psychotherapy
Schema
CBT
Depression: RCT

ABSTRACT

Background: The efficacy of Cognitive Behavior Therapy (CBT) for depression has been robustly supported, however, up to fifty percent of individuals do not respond fully. A growing body of research indicates Schema Therapy (ST) is an effective treatment for difficult and entrenched problems, and as such, may be an effective therapy for depression.

Methods: In this randomized clinical trial the comparative efficacy of CBT and ST for depression was examined. 100 participants with major depression received *weekly* cognitive behavioral therapy or schema therapy sessions for 6 months, followed by *monthly* therapy sessions for 6 months. Key outcomes were comparisons over the weekly and monthly sessions of therapy along with remission and recovery rates. Additional analyses examined outcome for those with chronic depression and comorbid personality disorders.

Results: ST was not significantly better (nor worse) than CBT for the treatment of depression. The therapies were of comparable efficacy on all key outcomes. There were no differential treatment effects for those with chronic depression or comorbid personality disorders. Limitations: This study needs replication.

Conclusions: This preliminary research indicates that ST may provide an effective alternative therapy for depression.

1. Introduction

Cognitive behavior therapy (CBT) is recommended as one of the first-line treatments for individuals with major depression (Ellis et al., 2003; National Institute for Clinical Excellence (NICE), 2004). Despite the proven effectiveness of CBT only 40–50% with depression will make a full recovery with their first course of treatment, and some are likely to have a poor outcome despite completing treatment. Moreover, 3–5% may develop a chronic clinical course of depression which is resistant to treatment (Fournier et al., 2009; Hollon et al., 2005; Kessler et al., 1994). Other than chronicity, a number of other factors have been proposed to limit the effectiveness of CBT. Perhaps with the most contradictory evidence, is the treatment outcome when personality disorders are comorbid. A number of studies indicate that treatments are less effective when a comorbid personality disorder is present (e.g. Bagby et al., 2008; Gorwood et al., 2010), with a recent meta analysis reporting the risk of poor outcome doubles (Newton-Howes et al., 2006). Other studies and reviews report no difference in outcome between depressed individuals with and without personality disorders (Kelly et al., 2009; Kool et al., 2005; Niemeyer and Musch, 2013; van den Hout et al., 2006).

Limitations in the effectiveness of traditional CBT for depression, and growing recognition that depression is a chronic and/or recurrent disorder for many people often associated with other comorbid axis I and II problems, has led to increased use by clinicians of Schema Therapy (ST) in the treatment of depression. Schema Therapy was initially developed by Young (1990) for the treatment of personality dysfunction. In contrast to traditional CBT, ST concentrates immediately and specifically on the schema and related developmental processes that prevent individuals having their core needs met in an adaptive manner. It has been proposed that these schema *must* be modified in order to bring about lasting change, particularly for individuals with more difficult or entrenched problems such as chronic or recurrent depression (Overholser, 1997; Riso et al., 2003; Safran and Segal, 1990; Young, 1990). Further, it has been proposed that any treatment that fails to reorganize or disrupt these fundamental assumptions leaves people cognitively at risk for the reactivation of maladaptive schemas during times of personal stress (Segal et al., 1988), and therefore at increased risk of depression reoccurring. These propositions are supported by research indicating that therapy that focuses more on interpersonal and developmental issues promotes long lasting recovery from depression and, importantly, reduces the risk of relapse (Hayes et al., 1996). Schema change has been

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0165-0327/$ - see front matter © 2013 Elsevier B.V. All rights reserved.
http://dx.doi.org/10.1016/j.jad.2013.06.034

associated with the resolution of symptomatic distress (Nordahl and Nysaeter, 2005).

Despite the widespread application of ST, there is still limited research investigating the efficacy of this therapy. Existing research indicates that ST is an effective treatment for borderline personality disorder (Farrell et al., 2009; Giesen-Bloo et al., 2006; Nadort et al., 2009; Nordahl et al., 2005; Nordahl and Nysaeter, 2005), substance dependence (Ball, 1998), chronic agoraphobia (Bamber, 2004) and borderline personality disorder and post-traumatic stress disorder in war veterans (Young, 2005). In the recent randomized clinical trial comparing ST and transference focused psychotherapy, ST also had a significantly lower rate of drop out from treatment than transference focused therapy (Giesen-Bloo et al., 2006). To date the efficacy of ST in treating depression has not been examined, however, specific schemas identified by Young have been shown to be a risk factor for depression (Halvorsen et al., 2010) and preliminary evidence suggests that ST may be effective for depression (Hawke and Provencher, 2011).

The primary aim of the current study was to compare the efficacy of ST with that of traditional CBT for individuals with a current major depressive episode. It was hypothesized that ST would be superior to CBT in achieving sustained change (percentage improvement on the Mongomery Asberg Depression Rating Scale (MADRS)) in depression. Secondary aims were to compare sustained change on self-report (percentage improvement on Beck Depression Inventory-II (BDI-II)) between ST and CBT and to compare the rates of remission and recovery.

Given the proposition that ST may be more effective for chronic problems and/or entrenched problems, we also examined whether or not ST would be more effective in those with chronic depression. Similarly, given that ST was initially developed for those with personality disorders, and given the equivocal treatment outcome findings when depression is comorbid with personality disorders, we examined whether or not ST would produce better outcomes for those depressed patients with a personality disorder.

2. Method

2.1. Participants

Participants (males $n=31$; females $n=69$) recruited for this study had a principal current diagnosis of major depressive disorder (DSM-IV American Psychiatric Association, 1994) and were over the age of 18 years. Participants were assessed and treated in an outpatient clinical research unit in the Department of Psychological Medicine, University of Otago, Christchurch, New Zealand. Participants were required to be free of any centrally active drug, other than an occasional hypnotic and the oral contraceptive pill for a minimum of two weeks. Exclusion criteria were a history of mania (bipolar I disorder), schizophrenia, major physical illness which would interfere with treatment, moderate or severe alcohol or drug dependence, and failure to respond to a recent (past year) adequate trial of CBT or ST. Participants were referred from general practitioners and mental health services or could self-refer. Recruitment occurred between 2004 and 2008.

2.2. Procedure

After an initial telephone screen for inclusion and exclusion criteria by a research nurse all potentially suitable participants were seen by a clinical psychologist for an initial assessment, and if suitability was confirmed, written informed consent was obtained and a baseline research assessment was scheduled.

The baseline assessment consisted of a structured clinical interview for DSM-IV Axis I disorders (SCID, Spitzer et al., 1992) conducted by a clinician and completion of self-report measures, and a neuropsychological assessment conducted by a research assistant. Following completion of the baseline assessment, participants were randomized to weekly therapy sessions of ST or CBT for six months, followed by monthly sessions for six months. The shift from weekly to monthly sessions was to continue the focus on factors maintaining the depression and/or to assist patients to maintain gains made after the weekly sessions.

This study had a parallel group design with participants being randomized in a 1:1 ratio based on computerized randomization sequence of permutated blocks of 20. The randomization procedure and allocation to treatment type was performed by a person independent from the study and was made available to the therapist and patient once the baseline assessment had been completed. While some flexibility in the number of therapy sessions was permitted to mimic usual clinical practice, the length of time treatment was available for participants in CBT and ST was matched (one year) for the comparison of outcome. An adequate dose of therapy was defined a priori as at least 15 weekly sessions and at least 3 monthly sessions.

Therapists (six clinical psychologists) provided both ST and CBT. Therapists were competent in CBT, which is a key component of professional training as a clinical psychologist in NZ. In addition, as required by their professional body, all therapists had attended CBT training to maintain competency. CBT was delivered according to Beck and Beck and colleagues' manuals (Beck et al., 1979; Beck, 1995). ST was delivered according to Young's published manuals (Young, 1990; Young and Klosko 1993; Young et al., 2003) and the week-long training workshops (involving lectures, videotape and experiential exercises) conducted by Young in NZ. Therapists were all female, had at least two years prior experience treating depressed patients, and were required to treat two patients in each modality to a satisfactory level of competence before commencing treatment of patients in the clinical trial. To ensure continued treatment fidelity, both therapist competence in delivering the two therapies and adherence to the treatment manuals, close individual and group supervision was provided. In addition, all therapy sessions were recorded, and randomly selected sessions were reviewed by the clinical supervisor using the Cognitive Therapy Rating Scale for CBT (Dobson et al. 1985) and a modified form of the CTS for ST. An adequate level of competency on the CTS is defined as a score of 40 or more. Therapists had fortnightly clinical supervision, which included close attention to treatment fidelity. During supervision particular attention was focused on any therapy session rating approaching the cutoff of 40, so overall considerable effort was made to maintain high CTS ratings for both therapies. The average CTS rating over the course of the study for CT was 47.12 (SD=7.65) and for ST was 54.4 (9.1) from the randomly selected sessions.

Personality was assessed by independent non-treating clinicians using the Structured Clinical Interview for DSM-IV personality disorders symptoms (SCID-II, First et al., 1997). Assessment using the SCID-II was guided by items previously affirmed by the patient on the Structured Clinical Interview for DSM-IV Personality Questionnaire (SCID-PQ, First et al., 1997), which was completed at baseline. Items not affirmed on the SCID-PQ were assumed to be true negatives, however if a clinician had reason to believe these were false negatives further items were assessed. This method is in accordance with instructions for using the SCID-II and enabled the assessment of personality disorder symptoms to be based upon self-report combined with a structured clinical interview. Inter-rater reliability was examined in a previous study, not this study, with the same raters assessing the presence of any personality disorder was 0.78.

2.3. Outcome

Sustained change was defined *a priori* as percentage improvement on the clinician-rated MADRS and the self-report Beck