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Schema therapy for chronic depression: Results of a multiple single case series

Fritz Renner [a, b, *, 1], Arnoud Arntz [b, c], Frenk P.M.L. Peeters [d], Jill Lobbestael [b], Marcus J.H. Huibers [e, b]

[a] MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom
[b] Department of Clinical Psychological Science, Maastricht University, The Netherlands
[c] Department of Clinical Psychology, University of Amsterdam, The Netherlands
[d] Department of Psychiatry and Neuropsychology, University Hospital Maastricht, The Netherlands. School for Mental Health and Neuroscience, Faculty of Health, Medicine and Life sciences, Maastricht University, The Netherlands
[e] Department of Clinical Psychology, VU University Amsterdam, The Netherlands

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ABSTRACT

Background and objectives: The aim of this study was to test the effects of individual schema therapy (ST) for patients with chronic depression.
Methods: Using a multiple-baseline single case series design, patients with chronic major depressive disorder ($N = 25$) first entered a 6–24 weeks baseline phase; this phase functioned as a no-treatment control condition. Then, patients started a 12 week exploration phase during which symptoms and underlying schemas were explored; this phase functioned as an attention control condition. Next, patients received up to 65 sessions of individual ST. The Beck Depression Inventory II (BDI-II) and the Quick Inventory of Depressive Symptomatology (QIDS) were the primary outcome measures. The BDI-II was assessed once a week during all phases of the study resulting in 100 repeated assessments per participant on average. Mixed regression analysis was used to contrast change in symptoms during the intervention with change in symptoms during the baseline and exploration control phases.
Results: When compared to the no-treatment control period, the intervention had a significant, large effect on depressive symptoms (Cohen's *d* BDI-II = 1.30; Cohen's *d* QIDS = 1.22). Effects on secondary continuous outcomes were moderate to large.
Limitations: The small sample size and lack of a control group.
Conclusions: These findings provide evidence that ST might be an effective treatment for patients with chronic depression.

1. Introduction

About one in five patients with depression develops a chronic course defined as the presence of depressive symptoms for two years or longer (Keller, Hanks, Kocsis, & Klein, 1995). Pharmacological and psychotherapeutic interventions for chronic depression are effective but meta analyses have shown that the effect sizes of psychotherapy are generally low (d = 0.23; Cuijpers et al., 2010) and remission rates following treatment with antidepressant medication are usually below 50% (for a review see: Kocsis, 2003), highlighting the need for treatment innovation for chronic depression. One promising psychotherapeutic intervention in this respect is the cognitive behavioral analysis system of psychotherapy (CBASP) (McCullough, 2003). Randomized controlled trials (RCTs) have shown that CBASP is at least as effective as antidepressant medication (Keller et al., 2000) and regular care (Wiersma et al., 2014) and more effective than regular care at 52 weeks follow-up (Wiersma et al., 2014). Although these findings are promising, about two-thirds of the patients who received CBASP in these studies did not remit, illustrating that there is room for improvement and a need to explore novel treatments for chronic depression.

* Corresponding author. MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF, United Kingdom.
E-mail address: Fritz.Renner@mrc-cbu.cam.ac.uk (F. Renner).
[1] Department of Clinical Psychological Science, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands.

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Chronic depression is often rooted in traumatic childhood experiences (Wiersma et al., 2009) and personality pathology (Fava et al., 1996; Hayden & Klein, 2001; Holmstrand, Engström, & Träskman-Bendz, 2008; Pepper et al., 1995). Current short-term, symptom focused treatments might fall short in addressing these factors sufficiently. We have argued that schema therapy (ST), a psychological treatment with a strong emphasis on childhood experiences and personality pathology, could be an effective treatment for chronic depression (Renner, Arntz, Leeuw, & Huibers, 2013). ST has established effectiveness in treating borderline (Giesen-Bloo et al., 2006; Nadort et al., 2009; Nordahl & Nysaeter, 2005) and primarily Cluster-C personality disorders (Bamelis, Evers, Spinhoven, & Arntz, 2013) and initial evidence suggests that ST could also be an effective treatment for chronic depression: Brewin et al. (2009) reported positive and large effects of imagery rescripting, a key-technique in ST, on depressive symptoms in patients with chronic depression. Carter et al. (2013) found comparable remission rates between a short ST protocol and cognitive therapy (CT) in a RCT (remission rates in ST: 50%; remission rates in CT: 40%). Malogiannis et al. (2014) tested a longer ST protocol in chronically depressed women in a case series and found large effects on depressive symptoms and approximately 60% of patients remitted.

Although these initial findings are promising, there is a need to further test the effects of ST for chronic depression with an appropriate amount of sessions. The current study advances previous studies by testing the effects of up to 65 individual sessions of ST in 25 patients with chronic depression using a multiple-baseline single case series design. Single case series are important research designs in the development of new treatments. They are recognized alternatives to cohort and case-control studies and have the advantage of smaller sample sizes compared to RCTs. The strength of the multiple-baseline design used in the current study above a single case series without multiple baselines (Malogiannis et al., 2014) is that, comparable to a RCT, symptomatic improvements during treatment can be attributed to the intervention rather than the mere passage of time (Kazdin, 1982). An extra asset of the current study is that, in addition to a random baseline period, we included an exploration phase during which therapists were instructed to not use any interventions aimed at changing symptoms. We hypothesized that ST would lead to a decrease in depressive symptom severity when compared to symptom change during the non-treatment control (baseline) phase or the exploration phase.

2. Methods

2.1. Participants

Twenty-five patients with chronic depression were recruited from a specialized secondary mental health facility in the Netherlands (RIAGG Maastricht). Table 1 shows demographic and clinical characteristics of the sample. Study procedures were prespecified prior to recruitment (clinicaltrials.gov: NCT01153867). Inclusion criteria were: (a) DSM-IV diagnosis of major depressive disorder for ≥ 2 years as indicated by the Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1997); (b) scoring ≥ 20 on the Beck Depression Inventory second edition (BDI-II; Beck, Steer, & Brown, 1996)[2]; (c) age between 18 and 65 years. Exclusion criteria were: a DSM-IV current or past diagnosis of major depression with psychotic features; current or past bipolar disorder; current or past psychotic disorder; alcohol or drug dependence or a autism spectrum disorder, as assessed with the SCID-I. Patients with cluster-A or cluster-B personality disorders, as assessed with the SCID-II, were also excluded. Patients with cluster-A and cluster-B personality disorders were excluded because these personality disorders were viewed as so complex that they would need specialized treatment. Patients with cluster-C personality disorders where not excluded due to the high co-morbidity with chronic depression. Additional exclusion criteria were acute suicide risk and inability to speak and read the Dutch language. Patients taking antidepressant medication were excluded, unless they were stable on medication for at least three months prior to screening.[3] The study was approved by the medical ethical committee of the University Hospital Maastricht, the Netherlands. Informed consent was obtained after study procedures were explained to participants and all procedures were in line with the Declaration of Helsinki.

Table 1
Overview of the demographic and clinical characteristics of the sample.

Variable	Mean (SD)/Frequency (%)
Age	41.36 (16.45)
Gender	
Female	20 (80%)
Male	5 (20%)
Country of origin	
Netherlands	23 (92%)
Other	2 (8%)
Marital status	
Single	10 (40%)
Partner	6 (24%)
Married	7 (28%)
Divorced	2 (8%)
Education level	
Low	1 (4%)
Medium	8 (32%)
High	16 (64%)
Work situation	
Paid work or student	10 (40%)
Unemployed	3 (36%)
Retired	9 (36%)
Other	3 (12%)
BDI-II score at screening	32.96 (9.37)
# Previous episodes	2.80 (2.14)
Secondary current axis-I diagnosis	
None	14 (56%)
Anxiety disorder	6 (24%)
Other	5 (20%)
Secondary current axis-II diagnosis	
None	9 (32%)
Depressive PD	9 (36%)
Avoidant PD	7 (28%)
Obsessive compulsive PD	6 (24%)
Dependent PD	1 (4%)
Antidepressant use at baseline	11 (44%)

Note. BDI-II = Beck Depression Inventory – second edition.

2.2. Design

A non-concurrent multiple random baseline design (Kazdin, 1982) consisting of three phases was used: 1) A baseline phase consisting of a 6–24 weeks waiting period that served as a no-

[2] Since schema therapy is a quite intense intervention we wanted to make sure that participants have a sufficiently high level of depressive symptom severity (i.e. at least moderate levels of depression). This was confirmed by a BDI-II score ≥20 at the screening appointment, indicating at least moderate levels of depression (Beck et al. 1996).

[3] Medication dosage of one participant taking venlafaxine was increased from 75 mg to 150 mg two month prior to start of the study.