RUNNING HEAD: INTENSIVE CT FOR PTSD

Intensive cognitive therapy for Post-Traumatic Stress Disorder in routine clinical practice: A matched comparison audit

Hannah Murray*

Oxford Centre for Anxiety Disorders and Trauma, University of Oxford

Sharif El-Leithy

Traumatic Stress Service
South-West London & St George's NHS Trust

&

Jo Billings

Berkshire Traumatic Stress Service

*Requests for reprints should be sent to Hannah Murray, Oxford Centre for Anxiety Disorders and Trauma, University of Oxford, The Old Rectory, Paradise Square, Oxford OX1 1TW; hannah.murray@psy.ox.ac.uk

Keywords: PTSD, Trauma, Cognitive Therapy, CBT

Acknowledgments

Many thanks to everyone who has helped out with this project, especially our assistants Jenny Birch, Rebecca Williams, Glorianne Said, and Olivia Holzhauer-Conti; our colleagues Pippa Stallworthy and Tess Browne; our statistical advisor Jared Smith; and all our clients.

Abstract

Objectives: Intensive cognitive therapy for Post-Traumatic Stress Disorder (PTSD) has been shown to be as effective as weekly treatment in controlled trials. In this study, outcome data comparing standard and intensive treatments delivered in routine clinical practice were analysed. Methods: A consecutive case series of intensive treatment cases were compared to matched control cases who had completed weekly treatment. Results: Both groups showed significant improvements on PTSD and depression measures. The intensive group showed larger PTSD symptomatic improvement. There were differences between the groups in age and time since trauma, suggesting selection biases in who is offered, and/or who chooses intensive treatment. Conclusions: For some individuals, an intensive format may be more effective than weekly treatment.

Introduction

Time-intensive treatment formats, for example where treatments are delivered over one week, have been found to be an effective alternative to weekly sessions for various disorders, including Obsessive-Compulsive Disorder (Oldfield, Salkovskis & Taylor), panic disorder (Deacon & Abramowitz, 2006), and specific phobias (Öst, 1989).

Ehlers and colleagues have developed an intensive version of cognitive therapy for PTSD (delivered over 5 days), which has been shown to be equally as effective as weekly treatment (Ehlers et al., 2010; 2014). Grey, McManus, Hackmann, Clark and Ehlers (2009) report some potential additional advantages to intensive therapy, including faster recovery time, more efficient use of therapy (with less session time spent dealing with non-trauma-related issues which have emerged during the week), less interference from memory loss and less

opportunity for avoidance. Intensive treatments may have practical advantages for some clients, for example where taking regular time off work, or travelling long distances to attend therapy present barriers to attendance.

Despite these promising initial findings, few clinics currently offer intensive treatments as part of their service provision, and there are no published findings on how well the format disseminates outside research trials. Implementing intensive treatments can present practical obstacles, such as managing therapists' caseloads and time.

This study compared outcomes for intensive and weekly treatments, using cognitive therapy for PTSD (Ehlers & Clark, 2000), at a traumatic stress clinic in the UK which delivers both formats. Using the methodology employed by Oldfield et al. (2011), a consecutive case series of individuals who had undergone intensive therapy were compared to a matched comparison group who had received weekly treatment.

Method

Design

A consecutive case series of twenty intensive treatment cases were matched with individuals who had attended weekly treatment during the same time period. Clients without start and end-point measures (n = 15), or who required an interpreter for treatment (n = 12), which had not been possible for intensive treatments, were excluded from the matching pool, leaving 78 weekly patients eligible for matching. Clients were matched on two variables which are known predictors of treatment outcome in cognitive therapy for PTSD (Ehlers et al., 2013): having PTSD to, and requiring treatment for, multiple traumas, and concurrent social

problems. These variables are coded by the assessor at intake. A pool of potential matches for each intensive case was generated from the service database. When there was more than one potential match for an intensive case, the client with the closest pre-treatment score on the PTSD measure was selected.

Setting

All patients were treated at an NHS traumatic stress service in London, UK. Referrals to the service come from primary and secondary care mental health teams. Clients undergo a diagnostic assessment by a clinical psychologist at intake to confirm PTSD (according to DSM-IV) is the primary presenting problem. Most clients are offered the choice of weekly or intensive therapy. However, clients with current acute risk issues or practical problems regarding attendance are not offered intensive treatments.

Treatments

The content of both the weekly and intensive treatments was based on Ehlers and Clark's (2000) cognitive therapy for PTSD. There were no major differences between the content of the two treatment conditions, apart from the time format, and both treatments were delivered by the same small team of clinical and trainee clinical psychologists.

Weekly treatment comprised sessions of 60-90 minutes once a week. Homework tasks were carried out between sessions. The intensive treatment comprised daily sessions of approximately five hours. In most cases, up to five treatment days were offered over a two-week period, with minor variations depending on client and therapist availability. Follow-up sessions were offered as required, typically on a monthly basis for 3 months, but this was extended in some cases.

There were no strict upper limits on session numbers in either group. As a specialist trauma service, the majority of cases referred are complex, and treatment focused on achieving recovery goals rather than session numbers. Treatment concluded when clients had reached their treatment goals, or were experiencing no further symptomatic change.

Measures

Both groups completed self-report symptom measures at assessment and end of treatment, namely the Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995), and the Beck Depression Inventory-II (BDI-II; Beck, Steer & Brown, 1996). Both are well-validated and widely used measures.

Analysis

The intensive and weekly groups were compared on various demographic and clinical variables using Chi-squared tests for discrete variables, and one-way analysis of variance (ANOVA) for continuous variables. Within and between-group ANOVAs were employed to consider treatment outcomes, and effect sizes (Cohen's *d;* Cohen, 1988) were calculated. A mixed ANOVA was used to compare the standard and intensive treatment groups. Where measures did not meet requirements for univariate normality using skewness and kurtosis estimates, log transformations were completed, or non-parametric statistics employed. All statistical analyses were completed with the Statistical Package for the Social Sciences Release 23.0 (SPSS, IBM) with a criterion for statistical significance set at $p < 0.05$.

Results

Descriptive variables

Following matching, both groups had equal numbers of clients with social problems (n = 6; 30%) and who required treatment for multiple traumas (n = 6; 30%). Comparison of other descriptive variables revealed no significant differences between the groups on gender, ethnicity or type of trauma. However, the intensive group were significantly younger than the standard group (F = 6.46; p = 0.015), and had more recent traumatic experiences (F = 14.15; p = 0.001). Both groups received an equivalent amount of therapy hours, but the intensive group had a shorter period of time in treatment (F = 6.55; p = 0.015).

Outcomes

Patients in both the weekly and intensive groups showed significant improvements in their scores on PTSD and depression outcome measures, with large effect sizes (Table 1). A mixed ANOVA showed a significant group by time interactions, F (1, 36) = 5.28, p = 0.027, indicating that the intensive group showed a larger improvement on their PTSD scores than the weekly group. The same analysis on the depression outcome scores showed a trend in the same direction, F (1, 36) = 2.56, p = 0.066.

[Table 1]

Given the differences between the groups on age and time since trauma, the relationship between these variables and treatment outcome was considered. Post-treatment PDS scores did not significantly correlate with age (r = 0.17; p = 0.290) or time since trauma (r = 0.17; p = 0.284). The effect of treatment group on outcome remained significant when age and time since trauma were controlled for.

Discussion

This study is the first to assess outcomes of intensive cognitive therapy for PTSD in routine clinical practice. The intensive format was found to be highly effective for clients and led to greater improvements in PTSD symptoms than a matched group who had received weekly treatment.

This study adds to the evidence base showing that the standard weekly treatment formats widely employed in psychotherapy may not be the only effective means of delivering therapy. The finding that significant clinical gains can be made during intensive treatments suggests that time between sessions to process the work done and to complete homework tasks is not essential for treatment success. Working intensively may be a more effective format than weekly treatment for some clients. Shorter gaps between sessions may lead to a sense of momentum, and reduce interference from life events outside therapy (also noted by Grey et al., 2009).

As the design did not include randomisation and clients were both selected for, and opted-in to, the intensive treatment, it is likely that this group were different in important ways to those who had weekly treatment. For example, they may have represented a more motivated and less avoidant group than those who preferred weekly treatment. Clinicians only offered intensive treatments to clients who could attend regularly and did not present acute risk issues.

The intensive group were significantly younger and had more recent traumatic experiences than the weekly group. The intensive treatment remained more effective when age and time since trauma were controlled for. However, these differences suggest a potential selection

bias in who is offered, and/or who accepts intensive treatment and may be reflective of other variables related to chronicity that affect treatment outcomes. For example, clients with more chronic PTSD may have had more failed treatment attempts, be less hopeful about treatment being successful, have developed more comorbid difficulties or more avoidance strategies, all variables which may affect willingness to engage in an intensive treatment. Reasons for not offering the intensive treatment, or for clients refusing it, were not recorded in this study, so these hypotheses require future investigation.

There are a number of limitations to this study. It was not designed as an RCT and, although efforts were made to minimise differences between the groups by using a matching design based on variables known to predict treatment outcome, the two groups cannot be assumed to be equivalent. Additionally, the study lacked blind assessment, and outcomes were based on self-report measures.

Further research is required to identify which clients may benefit, or not, from intensive treatment formats. Qualitative research into the service user and therapist experience of undertaking an intensive treatment would also be of interest.

References

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Beck depression inventory-II. *San Antonio, TX*, 78204-2498.

Cohen, J. (1988). Statistical analysis for the behavioral sciences. *Hillsdale: Lawrence Erlbaum.*

Deacon, B., & Abramowitz, J. (2006). A pilot study of two-day cognitive-behavioral therapy for panic disorder. *Behaviour Research and Therapy, 44,* 807-817.

Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy, 38,* 319-345.

Ehlers, A., Clark, D. M., Hackmann, A., Grey, N., Liness, S., Wild, J., ... & McManus, F. (2010). Intensive cognitive therapy for PTSD: A feasibility study. *Behavioural and Cognitive Psychotherapy, 38,* 383-398.

Ehlers, A., Grey, N., Wild, J., Stott, R., Liness, S., Deale, A., ... & Manley, J. (2013). Implementation of cognitive therapy for PTSD in routine clinical care: effectiveness and moderators of outcome in a consecutive sample. *Behaviour Research and Therapy, 51,* 742-752.

Ehlers, A., Hackmann, A., Grey, N., Wild, J., Liness, S., Albert, I., ... & Clark, D. M. (2014). A randomized controlled trial of 7-day intensive and standard weekly cognitive therapy for PTSD and emotion-focused supportive therapy. *American Journal of Psychiatry, 171,* 294-304.

Foa, E. B. (1995). Posttraumatic stress diagnostic scale (PDS). *Minneapolis: National Computer Systems*.

Grey, N., McManus, F., Hackmann, A., Clark, D. M., & Ehlers, A. (2009). Intensive cognitive therapy for post-traumatic stress disorder. *A Casebook of Cognitive Therapy for Traumatic Stress Reactions*, 111.

Oldfield, V. B., Salkovskis, P. M., & Taylor, T. (2011). Time-intensive cognitive behaviour therapy for obsessive-compulsive disorder: A case series and matched comparison group. *British Journal of Clinical Psychology, 50*, 7-18.

Öst, L. G. (1989). One-session treatment for specific phobias. *Behaviour Research and Therapy, 27*, 1-7.

Table 1:

Between and within groups comparisons on measures of PTSD and depression

	Standard (n = 20)		Intensive (n = 20)		F	p
	Mean	SD	Mean	SD		
PDS pre-treatment	36.50	7.28	37.70	9.35	0.21	0.653
PDS post-treatment	17.40	10.50	9.30	6.55	8.57	0.006
t	7.32		14.25			
p	>0.001		>0.001			
Effect size Cohen's d	1.67		3.31			
BDI-II pre-treatment	33.20	9.72	34.45	11.79	0.13	0.717
BDI-II post-treatment	17.40	11.27	11.35	7.68	3.93	0.055
t	6.31		9.43			
p	>0.001		>0.001			
Effect size Cohen's d	1.42		2.22			