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Early in-session predictors of response to trauma-focused cognitive therapy for posttraumatic stress disorder

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ABSTRACT

Trauma-focused cognitive behaviour therapy is effective in treating posttraumatic stress disorder but non-response rates range between 25% and 50%. Results of previous research on patient characteristics predicting outcome are inconsistent and mainly focused on demographic and diagnostic variables. This study examined whether behavioural predictors of poor treatment response can be observed in early sessions. It was predicted that greater patient perseveration, lower expression of thoughts and feelings and weaker therapeutic alliance would be associated with poorer outcomes. We also explored the relationships of patient behaviours with therapeutic alliance and the efficiency and competence of treatment delivery. Audio or video recordings of the initial treatment sessions of 58 patients who had shown either good (n = 34) or poor response (n = 24) to cognitive therapy for PTSD (CT-PTSD, Ehlers & Clark, 2000) were blindly coded for patient perseveration, expression of thoughts and feelings, therapeutic alliance, efficiency and competency of treatment delivery and therapist competence. Poor responders showed more perseveration and less expression of thoughts and feelings in the initial session. Patient perseveration and low expression of thoughts and feelings were associated with poorer therapeutic alliance and compromised treatment delivery. Patients with these behavioural characteristics may benefit from additional treatment strategies. Limitations of the study and implications for clinical practice are discussed.

1. Introduction

Trauma-focused cognitive behaviour therapy (CBT) is an effective first-line treatment for posttraumatic stress disorder (PTSD) (Bradley, Greene, Russ, Dutra, & Westen, 2005; Cloitre, 2009; National Institute for Health and Care Excellence, 2005). However, treatment non-response rates range between 25% and 50% (for reviews see Bisson, Roberts, Andrew, Cooper, & Lewis, 2013; Bradley et al., 2005; Schottenbauer, Glass, Arnkoff, Tendick, & Gray, 2008). There is a need to examine patient factors that might be predictive of poorer therapeutic response (Schottenbauer et al., 2008), as this may help refine treatment procedures or identify patients in need of additional interventions. Evidence regarding patient factors associated with poor treatment outcomes in CBT for PTSD is limited and there is a need for further research to examine indicators of non-response to treatment (Hembree, Marshall, Fitzgibbon, & Foa, 2001).

1.1. Patient factors predicting treatment response

It has been argued that patient factors account for between 40% and 87% of the variance in treatment outcome (Bohart & Greaves Wade, 2013; Lambert, 1992; Wampold, 2010). For PTSD treatment, demographic and diagnostic variables, including gender, age, ethnicity, comorbid psychiatric diagnoses and trauma characteristics, predicted outcome in some studies. However, few variables consistently predicted outcome across studies (e.g., Ehlers et al., 2013; Schottenbauer et al., 2008; van Minnen, Arntz, & Keijsers, 2002).

There has also been some exploration of patient cognitions and

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behaviours that may moderate response to treatment. This line of research may be helpful in identifying variables that are malleable with targeted intervention. Recurrent and repetitive negative thinking about the trauma and its consequences has been hypothesised to maintain PTSD symptoms (Ehlers & Clark, 2000; Ehlers & Steil, 1995). This can take the form of rumination about what happened and worry about potential future trauma. Rumination is distinct from intrusive re-experiencing as ruminative thoughts are longer in duration and involve evaluative verbal thoughts rather than sensory responses and memories (Ehring, Frank, & Ehlers, 2008; Speckens, Ehlers, Hackmann, Ruths, & Clark, 2007). Rumination and worry often overlap and co-occur (Fresco, Frankel, Mennin, Turk, & Heimberg, 2002) and consequently researchers have used the terms "repetitive thought" or "perseverative thinking" to capture the process of perseverative thinking about the past or future (Segerstrom, Stanton, Alden, & Shortridge, 2003; Watkins, 2008). There is evidence that "perseverative thinking" is a transdiagnostic process that is involved in several disorders including PTSD (Ehring & Watkins, 2008).

Several prospective studies found that perseverative thinking about the trauma and its consequences in the initial weeks after trauma predicted chronic PTSD (Ehring, Ehlers, & Glucksman, 2008; Kleim, Ehlers, & Glucksman, 2007; Michael, Halligan, Clark, & Ehlers, 2007). Perseverative thinking may maintain PTSD symptoms in several ways, including: inducing a persistent state of negative emotional arousal (Ehring, Szeimies, & Schaffrick, 2009; Moore, Zoellner, & Mollenholt, 2008), strengthening problematic appraisals such as excessive self-blame and perceived permanent change, preventing elaboration of trauma memories and providing retrieval cues for intrusive memories (Ehlers & Clark, 2000).

It has been suggested that the presence of perseverative thinking may prevent the patient from receiving a sufficient "dose" of therapy (Echiverri, Jaeger, Chen, Moore, & Zoellner, 2011; Wells & Sembi, 2004). Echiverri et al. (2011) presented the case of a non-responder to prolonged exposure. They reported that the patient's in-session rumination facilitated avoidance of engaging with emotions present during their trauma (i.e. fear). The authors proposed that this prevented habituation during repeated exposure and thus blocked integration of corrective information into the trauma memory, leading to a poor treatment outcome. However, as this was a single case study, the authors highlighted the need for further therapy process research, particularly comparison of treatment responders with non-responders. The present study investigated the influence of observed perseveration on the efficiency and competency of treatment delivery, therapeutic alliance and treatment outcome in another form of trauma-focused CBT, CT-PTSD (Ehlers & Clark, 2000; Ehlers, Clark, Hackmann, McManus, & Fennell, 2005).

There is a long tradition in patient-centred and psychoanalytic psychotherapy research of investigating the role of patients' degree of self-exploration, introspective awareness or psychological mindedness (i.e. the ability to discriminate and describe emotions and thoughts), on the therapeutic relationship, commitment to psychotherapy and treatment outcome. There is evidence of a positive association between psychological mindedness and treatment outcome (Conte et al., 1990; Piper, Joyce, Rosie, & Azim, 1994). Alexithymia, a personality trait characterised by poor insight into and expression of personal emotional experience, has been associated with PTSD (see Frewen, Dozois, Neufeld, & Lanius, 2008 for a review), and also linked to poor treatment outcome in psychotherapy (McCallum, Piper, Ogrodnczuk, & Joyce, 2003; Ogrodniczuk, Piper, & Joyce, 2005).

These variables have received less attention in CBT. Two studies investigating alexithymia and CBT treatment for sub-threshold depression and obsessive compulsive disorder did not find a relationship with outcome (Rufer et al., 2004; Spek, Nyklícek, Cuijpers, & Pop, 2008). There is some evidence that psychological mindedness improves during CBT (Nyklíček Majoor & Schalken, 2010). In cognitive behavioural treatments of PTSD, lower expression of thoughts and feelings early in therapy may interfere with establishing a good therapeutic relationship or make it harder for the therapist to identify cognitions that maintain a patient's problem and tailor interventions accordingly. The ability to differentiate emotions has predominantly been assessed using self-report measures and it has been argued that behavioural observation may be a more reliable assessment (Kashdan, Barrett, & McKnight, 2015). In line with this, the present study explored behavioural indicators of introspective awareness (expression of thoughts and feelings) in an early PTSD treatment session and their relationship with treatment outcome, efficiency and competency of treatment delivery and the therapeutic relationship.

1.2. Therapeutic alliance

There is a large body of literature relating to the effects of therapeutic alliance on treatment outcome (Baldwin & Imel, 2013), but little research has focused on these factors in PTSD specifically. A good therapeutic alliance has been demonstrated to be important to the outcomes of cognitive behavioural therapy in general (Hardy, Cahill, & Barkham, 2007) and some evidence indicates that strong early alliance can predict good treatment compliance and outcome (Keller, Zoellner, & Feeny, 2010; Klein et al., 2003). However, the overall relationship between alliance and treatment outcome may only be small (Crits-Christoph, Connolly Gibbons & Mukherjee, 2013). Moreover, in a study of patients with depression DeRubeis and Feeley (1990) found that a strong therapeutic alliance in fact followed symptomatic change, rather than preceding it (see also DeRubeis, Gelfand, German, Fournier, & Forand, 2014, for a detailed discussion of temporal confounds in process-outcome research). Webb et al. (2011) concluded that the "bond" component of the alliance might be dependent on prior symptomatic improvement, suggesting the relationship between alliance and treatment outcomes may not be unidirectional. McLaughlin, Keller, Feeny, Youngstrom, and Zoellner (2014) found that unrepaired ruptures in alliance were predictive of poor outcome in prolonged exposure for PTSD. Thus, alliance may change over the course of therapy and the pattern of changes may be relevant for treatment outcome.

1.3. Treatment delivery

The competence and efficiency with which treatment is delivered may predict outcomes. For PTSD, Ehlers et al. (2013) and Duffy, Gillespie, and Clark (2007) found a higher drop-out rate for inexperienced therapists. Overall the size of the relationship between competency and treatment outcomes varies across studies (Branson, Shafran, & Myles, 2015; Strunk, Brotman, DeRubeis, & Hollon, 2010; Webb, DeRubeis, & Barber, 2010), and depends on the range of competency considered. The present study explored whether patient behaviours may affect the competency and efficiency of treatment delivery in experienced therapists.

1.4. Observations of in-session behaviours

Most previous research on the influence of patient characteristics on treatment outcome studied either self-reports or demographic and diagnostic predictors. Systematic observation of therapy sessions might be fruitful in establishing behavioural characteristics of patients and their interaction with the therapist that are predictive and could guide the therapist in tailoring the treatment to the patient's behaviours. Few studies to date have