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Single-case experimental studies of a self-help manual for traumatic stress in earthquake survivors

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ABSTRACT

Studies showed that earthquake-related posttraumatic stress disorder could be reduced by a single session of therapist instructions for self-exposure to fear cues. Eight single-case experimental studies examined whether such instructions were as effective when delivered through a self-help manual after an initial assessment. After two baseline assessments conducted at the participants homes, the manual was delivered to the participants, who were then assessed at week 10 (post-treatment) and at 1-, 3-, and 6-month post-treatment. After minimal improvement during the baseline, treatment achieved marked improvement in seven survivors, leading to effect sizes comparable to those obtained by therapist-delivered treatment. Self-help appears to be a promising approach in cost-effective survivor care.

1. Introduction

Major earthquakes traumatise millions of people, causing a mental health problem that often overwhelms the resources of the affected countries. The enormous task of delivering urgent treatment to such large survivor populations requires interventions that can be delivered with minimal or no therapist involvement. Although there is evidence to show that exposure-based self-help treatments are

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effective in anxiety disorders (Newman, Erickson, Przeworski, & Dzus, 2003) their usefulness in post-traumatic stress disorder (PTSD) has not yet been adequately explored. A recent study (Ehlers et al., 2003) found that a self-help manual based on cognitive-behavioural treatment (CBT) was not useful in survivors of motor vehicle accidents.

Since the 1999 earthquakes in Turkey, we developed a mental health care model based on largely self-help behavioural treatments that involved minimal therapist involvement. The treatment involved mainly instructions for self-exposure to distressing or fear-evoking trauma cues presented with a rationale to enhance sense of control over fear and no systematic cognitive restructuring. In four trials this intervention was demonstrated to achieve marked improvement in over 80% of the cases, whether delivered in four weekly sessions (Başoğlu, Livanou, Şalcıoğlu, & Kalender, 2003) or in a single session involving self-exposure instructions alone (Başoğlu, Şalcıoğlu, Livanou, Kalender, & Acar, 2005), exposure to simulated tremors in an earthquake simulator without self-exposure instructions (Başoğlu, Livanou, & Şalcıoğlu, 2003), or a combination of the latter two interventions (Başoğlu, Şalcıoğlu, & Livanou, 2007). These studies also showed that reducing therapist involvement did not affect treatment compliance. Over 90% of the survivors complied with self-exposure instructions given in a single session and reduced behavioural avoidance early in treatment was associated with subsequent improvement in all PTSD symptoms (Şalcıoğlu, Başoğlu, & Livanou, 2007a). This implied that reducing therapist involvement even further by delivering self-exposure instructions through other media, such as a self-help manual, might be possible without undermining treatment effectiveness.

Developing a self-help tool for behavioural treatment is a challenging task, because of the structured and directive nature of the intervention. Such a task requires a highly structured self-help manual. We developed such a tool that closely parallels the 10-session behavioural treatment (Başoğlu, Livanou, Şalcıoğlu, & Kalender, 2003) used in the earlier stages of our outreach care delivery programme in the disaster region. In the present article we report a series of eight multiple baseline single-case experimental studies that tested the effectiveness of the manual when delivered after an initial therapist contact. A randomised controlled study was not feasible, so we opted for experimental case studies. We hypothesised that the rates of improvement among the survivors who read the manual will be comparable to those achieved by therapist-delivered treatment in our previous studies.

2. Method

2.1. Participants

Following the 1999 earthquakes in Turkey we established an outreach treatment delivery programme, which involved consecutive house visits in the disaster region to identify survivors in need of care using a self-rated diagnostic screening instrument (Traumatic Stress Symptom Checklist – TSSC; Başoğlu et al., 2001). Participants ($n = 15$) for the present study were consecutively recruited from among the survivors living in two permanent housing sites for homeless survivors in the epicenter region. Survivors with probable PTSD (TSSC score >25) were further assessed to determine their eligibility for the study. Inclusion criteria were diagnosis of PTSD, literacy, age 16–65 years, and ability to attend follow-up assessments. Exclusion criteria were predominating depression or grief, psychotic illness, use of benzodiazepines, use of antidepressants for less than 2 months at assessment, and previous CBT for earthquake-related PTSD. Survivors with predominating grief problems were excluded because treatment of such problems required additional behavioural interventions, which were not covered by the self-help manual. The study was conducted between July 2003 and October 2004.

Fig. 1 shows the flow of participants into the study. Consecutive screening in the community identified 109 cases with PTSD. Of these cases, 48 were eligible for study (excluding 8 refusers). The majority of ineligible cases were excluded because they were deemed not suitable for self-help treatment. Predominating depression required drug treatment and cases with prolonged grief had to be treated by a therapist. Survivors with certain physical conditions (e.g. cardiovascular problems, pregnancy) were excluded because we did not want to prescribe exposure treatment to these survivors outside our control. Those with history of Conversion Disorder with seizures were excluded because possible 'seizures' as a result of heightened anxiety during exposure might have been misinterpreted as worsening in the survivors' condition.