



Brief intervention for Post Traumatic Stress Disorder with combined use of Cognitive Behaviour Therapy and Eye Movement Desensitisation Reprocessing

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Abstract

This case study is of a 23 year old female diagnosed with Post Traumatic Stress Disorder (PTSD) in Sri Lanka, six months following the Asian Tsunami of December 2004. The intervention was conducted in a village clinic on the southern coast of the country. Treatment involved the use of Cognitive Behavioural Therapy (CBT) and Eye Movement Desensitisation Reprocessing (EMDR). The Beck Anxiety Inventory (BAI) was used to monitor levels of anxiety. The Impact of Event Scale (IES) was administered to assess level of intrusion and avoidance (Horowitz, Wilner & Alvarez, 1979). Subjective Units of Distress Scores (SUDS) were obtained to assess level of distress and the Validity of Cognition Scale (VOC) used to assess accuracy of positive beliefs (Shapiro, 2001). A significant reduction in trauma symptoms, levels of distress, intrusion and avoidance were noted at post-treatment. Treatment gains were maintained at one month and nine month follow-up. The combined treatment protocol may be an effective brief intervention to use in situations that require rapid treatments to alleviate personal psychological distress in the aftermath of large scale disasters.

Keywords

trauma, tsunami, impact of events, Post Traumatic Stress Disorder, Cognitive Behaviour Therapy, CBT, Eye Movement Desensitisation Reprocessing, EMDR

Introduction

The World Health Organization (WHO, 2005) reports 12-month prevalence rates for mild to moderate mental disorders such as depression, anxiety and Post Traumatic Stress Disorder (PTSD) to average around 10% in general populations across the world. Following disasters and resource loss this rate is expected to rise to 20%, and over the years these rates are expected to drop to 15% in severely affected areas due to natural recovery. Although approximately 31,000 people lost their lives in Sri Lanka following the Asian Tsunami in 2004, the prevalence of PTSD has not been studied in its aftermath (John & Russel, 2007). WHO has

provided an estimate of the mental health consequences in relation to the Asian Tsunami, indicating that mild psychological distress is experienced by 20-40%, to resolve within a few days or weeks, and moderate to severe psychological distress is experienced by 30-50%, that is likely to resolve with time or continue at a mild level. Overall, WHO states that as a result of disaster, general population rates of mental disorder would increase by 5-10%. Other authors have found that following exposure to traumatic events 40-70% of people have been identified to be at risk of developing PTSD (Yule, Williams & Joseph, 1999). According to Canterbury and Yule (1999a, 1999b) not all people develop

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Citation: Hettiarachchi, M. (2007). Brief intervention for Post Traumatic Stress Disorder with combined use of Cognitive Behaviour Therapy and Eye Movement Desensitisation Reprocessing. *Australian e-Journal for the Advancement of Mental Health*, 6(1), www.auseinet.com/journal/vol6iss1/hettiarachchi.pdf

Published by: *Australian Network for Promotion, Prevention and Early Intervention for Mental Health (Auseinet)* – www.auseinet.com/journal

Received 31 August 2006; Revised 12 March 2007; Accepted 12 March 2007

major stress reactions, and these figures change over time, from 20-70% in the first week, 30-40% in the first year and 15-20% in the second year following a disaster. Therefore, a significant portion of people exposed to traumatic events go on to develop severe and prolonged psychological reactions, indicating a need for effective therapeutic interventions for victims of natural disasters.

The National Institute for Clinical Excellence (2005) reports evidence for the effectiveness of trauma focused psychological treatments such as Cognitive Behaviour Therapy (CBT) and Eye Movement Desensitisation Reprocessing (EMDR). For instance, Watson and colleagues (2002) have found that 4-5 sessions of CBT provides an effective intervention in ameliorating symptoms of trauma. Smith and Yule (1999) reported that EMDR provides effective relief in 1-2 sessions, and recommend the combined use of CBT and EMDR as the most efficacious treatment of PTSD. The American Psychiatric Association (APA, 2004) practice guideline for the treatment of patients with symptoms of Acute Stress Disorder and PTSD gives EMDR the same status as CBT, as an effective treatment. Scheck and colleagues (1998) found that two sessions of EMDR reduced psychological distress in traumatised young women and scores on the Impact of Events Scale (IES: Horowitz, Wilner & Alvarez, 1979) reduced to the normal range. The construction of a coherent story about the traumatic event, together with expression of negative emotions, was beneficial and necessary for trauma resolution, and useful to incorporate into treatment protocols (Bisson, Shepherd, Joy & Probert, 2004; Pennebaker, 2001). Having a positive and strong support network is also vital to an individual's recovery (Joseph, 1999; McFarlane, 1987).

Case overview

Sumithra (not her real name) is a 23 year old female who presented with symptoms of post traumatic stress six months after her experience in the Asian Tsunami of December 2004, which hit the Southern coast of Sri Lanka. She was seen in her village-based clinic when she presented with sleep difficulty, reduced concentration, hypervigilance, and exaggerated startle response. She reported difficulty in

recalling events in the two days following the disaster, she avoided thoughts and feelings related to the trauma, had feelings of estrangement and withdrawal from others, and was not leaving the village to attend her university classes. Sumithra reported experiencing distressing dreams, intrusive images of the event and feelings of re-living the experience during waking hours, as well as anxiety symptoms, in the six months since the tsunami. I diagnosed Sumithra at the clinic as suffering from PTSD, based on the criteria of the Diagnostic and Statistical Manual of Mental Disorders (APA, 2000).

Sumithra is a first year university student who lives with her parents and four siblings. She has a good social network both in the village and at the university. She had no previous history of mental health problems. On the morning of the tsunami, Sumithra was preparing to leave for the city for her university exams. She was at the temple when she heard people shouting that the sea was approaching. She climbed onto the roof of a nearby building as the first wave approached, bringing with it people and debris. Following the wave she went home to find her family. Instead, she found a heap of rubble where her home had stood. When she attempted to run towards the sea to find her family, she was stopped and taken to safety before the second and third waves crashed.

Sumithra described feeling disoriented, and totally alone. She had no clear memory of subsequent events, except for finding her father and siblings later that evening. She recalled going from camp to camp until she found her mother two days later. Her family returned to the village four weeks later to commence rebuilding their home. In the subsequent weeks and months, people evacuated the village four times because of tsunami warnings, each time re-living the terror of another tsunami bringing further death and destruction. Sumithra reported being acutely aware of how vulnerable her elderly parents were, and had an intense fear of losing them. She dreaded the feeling of loss and loneliness she experienced with these thoughts. She avoided leaving her village as she wanted to be within running distance of her home, to be able to rescue her elderly parents in case of another tsunami. Sumithra reported that she was not afraid to die but was terrified of being alone.

Methodology

Measures

The Beck Anxiety Inventory (BAI) was used to assess level of anxiety at pre-treatment and at one month follow-up. The BAI is a 21 item psychometric tool, with good psychometric properties, that measures the intensity of anxiety symptoms during a one-week period (Beck & Steer, 1990). The Impact of Events Scale (IES) is a 15 item instrument with two subscales measuring intrusion and avoidance which indicates the extent to which the traumatic event reverberates in the mind (Horowitz et al., 1979). This measure was used at pre-treatment and post-treatment. Subjective Units of Distress Scores (SUDS) reflect subjective levels of distress from 0 (calm) to 10 (maximum distress) and Volition of Cognition (VOC) scores assess the validity of the positive cognition or accuracy of belief on a scale of 0-7 ranging from completely false to completely true (Shapiro, 2001).

The intervention

Sumithra attended the village clinic for three sessions of CBT and EMDR lasting ninety minutes each, during a three week period. EMDR involved supporting her to describe her fears and hold all the elements in mind while simultaneously engaging in bilateral eye-movements. Feedback was obtained on the material that was emotion provoking. This cycle was repeated, while observing for shifts in affect, physiological states and cognitive insights. Sumithra identified emotions and physical sensations, elicited when visual images of death and destruction were combined with the belief that 'my family is dead', 'I have no one', and 'I am alone in this world'. Three cycles were carried out by rewinding to sections of the narrative that generated sadness and fear. On each occasion she reported the level of distress she experienced, and her distress scores (SUDS) were noted.

Following this process Sumithra was guided to engage in the cognitive installation of positive self statements. She was encouraged to generate a comfortable and safe image of a star. This calm imagery was juxtaposed with the positive self statements, of 'I am courageous and strong', 'I survived', 'my family survived', and 'I know what to do in a crisis' while engaging in

simultaneous bilateral eye movements. Scores on the VOC scale were obtained to assess the strength of belief in the statements.

Sumithra was supported to cognitively reframe the events in the light of her survival and the survival of her family, the social supports received, her new found strength, the compassion and caring of people following this disaster, and her future plans. Psychoeducation on the nature and course of PTSD, working through difficulties using the problem solving technique, processing negative thoughts through a thoughts diary, as well as relaxation and breathing techniques to manage anxiety, were introduced as active self help skills to use in the long term as part of CBT. She was supported to write her experience, incorporating the survival, as a useful adjunct to CBT, which helped her form a coherent story.

In addition to these interventions, a crisis intervention plan was developed with Sumithra for her to put in place to ensure the safety of herself and her family. Given that many people died with the second and third waves of the tsunami, as a result of searching for others instead of running to safety, she identified the 'temple on the hill' as the safe meeting point for all to gather. This helped to reduce the fear and anxiety related to thoughts of 'how can I find them, where can I find them' and increased her level of control ('I know where to find them'). This enabled her to leave the village and venture out to the city with confidence ('I will find them all in the temple on the hill'). Once the plan was put in place she was supported to use realistic self talk and to reduce catastrophic thinking patterns; this helped her to leave the village to attend classes and not have to be in close proximity of her home.

Outcome

Sumithra had a pre-treatment BAI anxiety score of 36 (severe). At one month follow-up after the interventions her score was 5, and at nine months it was 3. On the IES she received a pre-treatment Intrusion score of 31 and an Avoidance score of 29 (both in the severe range). At one month post-treatment she received an IES Intrusion score of 5 and an Avoidance score of 1 (both in the minimal range). At nine month follow-up the Intrusion score was 1 and the Avoidance score 0. The SUDS dropped steadily from 8 to 0 across

the three sessions and the VOC scores gradually increased from 3 to 7. Following the first session, Sumithra had implemented the crisis management plan with her family in order to achieve a sense of control.

Discussion

Sumithra had access to general social and emotional support available to all within the village, through friends, family and the temple. However she attended therapy as she felt that her friends who had experienced similar symptoms appeared to have moved on while she continued to re-live the event over and over again. Her fear of leaving the village was masked as most activity takes place in the village; this helped her to stay in close proximity to her home, enabling her to 'rescue' her parents in case of another tsunami. This, however, had kept her from resuming her undergraduate classes in the city. She was also not able to relate the events of the tsunami without being overwhelmed by emotion.

Psychoeducation and validating Sumithra's emotional and physical reactions to the disaster were central to engaging her in therapy, as she carried with her a fear of not being 'normal'. Placing the events in context was vital as it helped Sumithra to perceive her reactions as an understandable response, given the enormity of the event. CBT enabled Sumithra to reframe her experience of the tsunami, allowing her to accept and recognise the destruction of the event, and understand her strength and courage during it. This helped her recognise that she was not now helpless but could prioritise and systematically work through her psychological difficulties. Facing up to her difficulties and working through them was helped by EMDR. The treatment gains are likely to have been maintained given that the village has a strong social support network, and people were not isolated in their grief, loss and anxiety.

Given the number of (false) tsunami warnings that followed the original event, CBT was an important part of Sumithra's relapse prevention training. She was monitored monthly and treatment gains were sustained nine months post treatment. Currently, Sumithra is preparing for her second year undergraduate exams while working part-time on a children's project located five miles away from her village.

The CBT strategies utilised in this case study are likely to have been effective given that the intervention was carried out in a Buddhist village where people are exposed to the Buddhist teachings on cognition, behaviour and the nature of reality (Rahula, 1996). Cognitive behavioural techniques are not alien to the Buddhist community, and an increasing number of professionals use EMDR in Sri Lanka.

The interventions can be replicated as the treatment was conducted in Sumithra's native language. I used the same treatment protocol in the village clinic with approximately 32 children, adolescents and adults, with good outcome. It is important that professionals using interventions are able to communicate effectively in the native language, and recognise and understand the expression of thoughts, feelings and behaviours in context.

The difficulty in isolating the effect of CBT and EMDR from the general social and emotional support that Sumithra received from the village is a clear limitation of the study. However, given that she presented with PTSD symptoms six months after the tsunami, despite ongoing social and emotional support, and that these symptoms alleviated following the intervention, it is assumed that the intervention had an impact. It was following intervention that Sumithra experienced a reduction in PTSD symptoms, was comfortable with leaving the village to attend her classes, and was able to relate her terrifying experience as an event in the past without being overwhelmed by emotion. Nonetheless, it must be recognised that the presence of natural supports have also contributed to her improvement.

The treatment interventions used in this case study were found to be effective, and it is clear that in the event of similar natural disasters there is a vital need for effective brief interventions. It is important that well controlled studies are carried out in future to test the effect of CBT, EMDR and combined treatment protocols in Sri Lanka and other countries affected by natural disasters around the globe. Given the demand for services and the scarcity of personnel, resources and time, there is an increasing need for well tested effective treatment techniques that can be used efficiently to alleviate psychological distress in the aftermath of large scale disasters.

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