Journal of Affective Disorders 173 (2015) 185–192

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

Emotion dysregulation mediates the relationship between trauma exposure, post-migration living difficulties and psychological outcomes in traumatized refugees

Angela Nickerson [a,*], Richard A. Bryant [a], Ulrich Schnyder [b], Matthis Schick [b], Julia Mueller [c], Naser Morina [b]

[a] School of Psychology, UNSW Australia, Sydney, NSW 2052, Australia
[b] Department of Psychiatry and Psychotherapy, Zurich University Hospital, Zurich 8091, Switzerland
[c] Psychiatric Services Thurgau, Münsterlingen 8596, Switzerland

ARTICLE INFO

Article history:
Received 31 July 2014
Received in revised form
22 October 2014
Accepted 22 October 2014
Available online 4 November 2014

Keywords:
Emotion regulation
Refugees
Trauma
Torture
Posttraumatic stress disorder
Depression

ABSTRACT

Background: While emotion dysregulation represents an important mechanism underpinning psychological responses to trauma, little research has investigated this in refugees. In the current study, we examined the mediating role of emotion dysregulation in the relationship between refugee experiences (trauma and living difficulties) and psychological outcomes.
Methods: Participants were 134 traumatized treatment-seeking refugees who completed measures indexing trauma exposure, post-migration living difficulties, difficulties in emotion regulation, posttraumatic stress disorder, depression, and explosive anger.
Results: Findings revealed distinctive patterns of emotion dysregulation associated with each of these psychological disorders. Results also indicated that emotion regulation difficulties mediated the association between both trauma and psychological symptoms, and living difficulties and psychological symptoms.
Limitations: Limitations include a cross-sectional design and the use of measures that had not been validated across all cultural groups in this study.
Conclusions: These findings underscore the key role of emotion dysregulation in psychological responses of refugees, and highlight potential directions for treatment interventions for traumatized refugees.

1. Introduction

There are currently over 35 million refugees and internally displaced persons internationally (UNHCR, 2012), with this number growing markedly in recent years. By definition, refugees have experienced persecution, and are thus often exposed to severe traumatic events including the death of loved ones, physical or sexual assault, and torture. Accordingly, refugees evidence elevated rates of psychological disorders including posttraumatic stress disorder (PTSD) and depression (Fazel et al., 2005; Steel et al., 2009). There is also emerging evidence that individuals exposed to conflict and persecution report high rates of other disorders, such as intermittent explosive disorder (IED; Brooks et al., 2011; Silove et al., 2009), which is characterized by spontaneous anger attacks that are out of proportion to triggering events, and may result in violence and the destruction of property (American Psychiatric Association, 2013). Research conducted over the past three decades has documented a dose–response relationship between trauma exposure and psychological distress in refugees (Mollica et al., 1998a, 1998b; Steel et al., 2009). Findings from these studies suggested that the greater the number of types of trauma participants were exposed to, the greater PTSD, anxiety, and depression symptoms they exhibited, after controlling for demographics. The adverse effects of trauma on refugees are compounded by post-migration stressors, including unemployment, insecure visa status, discrimination, and distance from family (Porter and Haslam, 2005). Despite numerous studies attesting to the link between trauma exposure, post-migration stressors and psychological disorders in refugees, there has been relatively little research investigating the psychological processes that may underpin this association. Elucidation of these factors would potentially inform the development of targeted treatment interventions to reduce psychological distress in refugees.

Emotion dysregulation represents a key mechanism that may underlie the relationship between refugee-related experiences and psychological disorders. Emotion regulation can be defined as the individual's capacity to monitor, evaluate, and modify emotional

* Corresponding author. Tel.: +61 2 9385 0538; fax: +61 2 9385 3641.
E-mail address: anickerson@psy.unsw.edu.au (A. Nickerson).

http://dx.doi.org/10.1016/j.jad.2014.10.043
0165-0327/

reactions in a manner that facilitates adaptive functioning (Gratz and Roemer, 2004). Research has indicated that individuals suffering from PTSD have impaired capacity to regulate emotions (Amstadter and Vernon, 2008; Kulkarni et al., 2013; Lilly and Hong Phylice Lim, 2013; Tull et al., 2007; Weiss et al., 2012). Further, difficulties in emotion regulation have been reported to mediate the association between exposure to childhood abuse and symptoms of borderline personality disorder (Gaher et al., 2013) and PTSD (Stevens et al., 2013), as well as between betrayal trauma and symptoms of PTSD, depression, and anxiety (Goldsmith et al., 2013). Notably, the relationship between emotion dysregulation and psychopathology appears to be especially prominent in survivors of repeated interpersonal traumatization (Walsh et al., 2011). While the majority of research investigating emotion regulation in trauma survivors has focused on PTSD, there is also evidence that emotion dysregulation contributes to depression in trauma survivors (Goldsmith et al., 2013; Klemanski et al., 2012; Lilly and Hong Phylice Lim, 2013), as well as in non-trauma exposed individuals (Campbell-Sills et al., 2006; Ehring et al., 2010; Garnefski and Kraaij, 2006). Impairments in emotion regulation have also been linked to anger responses and the perpetration of aggression (Besharat et al., 2013; Mauss et al., 2007; Memedovic et al., 2010; Shorey et al., 2011). Further, there is experimental evidence that the implementation of adaptive emotion regulation strategies can significantly reduce anger and aggression (Denson et al., 2012; Szasz et al., 2011). To our knowledge, however, the relationship between emotion dysregulation and anger responses has not yet been investigated in trauma survivors. While there are multiple ways to conceptualize emotion regulation, we operationalize it in accordance with the definition used in Gratz and Roemer's (2004) model, which focuses on domains of emotion dysregulation. Difficulties in these areas have been linked to psychopathology, including PTSD and depression (e.g., Bardeen et al., 2013; Klemanski et al., 2012; Stevens et al., 2013; Tull et al., 2007). Other conceptualizations of emotion regulation (e.g., Gross' (1998) model) focus on specific strategies involved in regulating emotions at different stages during the emotion process. In contrast, in this study, we focus on domains of emotion dysregulation as outlined by Gratz and Roemer (2004) in order to examine the relationship between refugee experiences, broad areas of emotion regulation deficits, and psychopathology.

Refugees may be especially vulnerable to emotion dysregulation as they are typically exposed to multiple types of interpersonal trauma in the context of persecution. Research suggests that post-migration living difficulties are associated with greater symptoms of PTSD, depression, and anxiety in resettled refugees (Porter and Haslam, 2005; Silove et al., 1997), and that reductions in living difficulties mediate improvements in mental health following the transition from insecure to secure visa status (Nickerson et al., 2011). While research to date has failed to address the association between post-migration living difficulties and emotion regulation, it may be the case that these daily living stressors also interfere with refugees' capacity to effectively regulate emotions and adapt following trauma and displacement. Accordingly, emotion dysregulation may act as a mechanism underlying the association between refugee experiences and psychological outcomes. This is supported by research evidence suggesting that improvement in emotion regulation capacity partly mediated PTSD symptom reduction following cognitive behavior therapy in Cambodian refugees (Hinton et al., 2009).

The goal of the current study was to investigate the potential mediating role of emotion regulation difficulties in the relationship between trauma exposure, post-migration living difficulties, and psychological outcomes (PTSD symptoms, depression symptoms, and explosive anger) in a sample of treatment-seeking, severely traumatized refugees. As research has suggested that different types of emotion regulation difficulties may be associated with distinct psychological outcomes (e.g., Benoit et al., 2010; Gaher et al., 2013; Hussain and Bhushan, 2011; Tull et al., 2007; Weiss et al., 2013), we investigated the influence on psychological outcomes of the six subtypes of emotion regulation difficulties proposed by Gratz and Roemer (2004). These encompassed (a) non-acceptance of emotional responses, (b) difficulties engaging in goal-directed behavior, (c) impulse control difficulties, (d) lack of emotional awareness, (e) limited access to emotion regulation strategies, and (f) lack of emotional clarity. We hypothesized that difficulties in emotion regulation would mediate the association between trauma exposure and psychological outcomes. In this study, we also propose an exploratory hypothesis; that difficulties in emotion regulation would mediate the association between living difficulties and psychological outcomes.

2. Materials and methods

2.1. Participants

Participants were 134 treatment-seeking refugees and asylum-seekers from a variety of backgrounds, including Turkey ($N=72$, 54%, with $N=58$, 43% being Kurdish), Iran ($N=16$, 12%), Sri Lanka ($N=11$, 8%), Bosnia ($N=6$, 5%), Iraq ($N=6$, 5%), Afghanistan ($N=5$, 4%), and Other ($N=20$, 13%). Participants were in therapy at an outpatient unit for victims of torture and war in either Zurich or Bern, Switzerland, and had received treatment for a mean of 30 months (SD=28.5). Inclusion criteria for the study included being aged 18 years or older, and speaking one of the study languages (German, English, Turkish, Arabic, Farsi, or Tamil). Exclusion criteria included current psychotic symptoms, severe dissociative symptoms or active suicidality. Based on the inclusion criteria, 152 patients were invited to participate in the study, and 137 patients (90.1%) agreed to participate. Of these, three patients failed to attend the research session.

2.2. Measures

All measures used in this study were translated and back-translated by accredited translators in accordance with gold-standard translation practices (Bontempo, 1993). Discrepancies were rectified jointly by the research team and independent bilingual individuals who were experienced in working with health-related questionnaires.

Exposure to traumatic events was indexed using a measure derived from combining the trauma event lists of two standardized questionnaires, namely the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992) and the Posttraumatic Diagnostic Scale (PDS; Foa, 1996; Foa et al., 1997). This scale yielded 23 items indexing exposure to these various types of traumatic events. Overall trauma exposure was represented by a count of the number of types of traumatic events experienced by each participant.

We used a version of the Post-Migration Living Difficulties Checklist (PMLDC; Silove et al., 1997; Steel et al., 1999) adapted to the Swiss context. This 17-item scale examined the extent to which post-migration challenges had been of concern to the individual over the past twelve months. Items are rated on a five-point scale (0=*not a problem* to 4=*a very serious problem*). Items scored at least 3 (*a moderately serious problem*) are considered positive responses, yielding a total count of living difficulties. This scale has consistently been identified as a predictor of mental health among displaced populations (Nickerson et al., 2010; Schweitzer et al., 2006; Steel et al., 2006).

Symptoms of PTSD were measured using the Posttraumatic Diagnostic Scale (PDS) (Foa, 1996), with four additional items