Mental health outcomes and shared experiences of refugee and migrant women following exposure to xenophobic violence: a mixed methods study

By

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DECLARATION

I declare that the study entitled, “Mental health outcomes and shared experiences of refugee and migrant women following exposure to xenophobic violence: a mixed methods study” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

Signature: J.A. White

31 March 2016

Date

Abstract

Disasters are global phenomena, often occurring without warning and with physical and psychological consequences among those affected. In May 2008, refugee and migrants living in South Africa were exposed to xenophobic violence, which may be described as a human-caused disaster using the Shultz, Espinel et al. (2008) definition of disaster. Refugee and migrant women were particularly vulnerable during this time due to heightened risk for exposure to violence and pathology. During 2014, a mixed methods convergent study was conducted in Johannesburg to determine the presence of acute stress disorder symptoms (ASD), posttraumatic growth (PTG) and experiences of xenophobic violence among refugee and migrant women. One hundred and three refugee and migrant women completed a self-administered questionnaire, while semi-structured individual interviews were conducted with a sub-set of 22 women.The quantitative results showed a positive, linear association between moderate ASD-total symptoms, as assessed by the Stanford Acute Stress Reaction Questionnaire (SASRQ) (Cardeña, Classen, Koopman, & Spiegel, 2014) and moderate posttraumatic growth-total, assessed by the posttraumatic growth inventory (PTGI) (Tedeschi & Calhoun, 1996). All ASD symptom subscales were predictors of posttraumatic growth. The qualitative results from both the SASRQ open-ended responses and semi-structured responses showed that refugee and migrant women were adversely affected by the xenophobic violence, with a prevailing fear that the xenophobic violence would re-occur. There was convergence in the quantitative findings and the qualitative findings for the pathological and adaptive outcomes. Policymakers must address xenophobic violence by working towards prevention of this type of violence. In instances where policies fail to address or prevent xenophobic violence, disaster programmes should consider xenophobic violence in disaster planning. Further to this, mental health intervention programmes should not only focus on alleviating ASD symptoms but also emphasise enhancing PTG.

Key terms: acute stress disorder, posttraumatic growth, disaster mental health, xenophobic violence, human-caused disaster, refugees, migrants, mixed methods

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(1920-2013)

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ABBREVIATIONS AND ACRONYMS

ACTH	Adrenal corticotrophic hormone
ADF	Africa Diaspora Forum
ANS	Autonomic nervous system
APA	American Psychiatric Association
ASD	Acute stress disorder
CoRMSA	Consortium for Refugees and Migrants in South Africa
CPTSD	Complex posttraumatic stress disorder
CRH	Corticotrophic releasing hormone
DSM	Diagnostic and Statistical Manual of Mental Disorders
FFFS	Fight, flight or freeze system
GAS	General adaptation syndrome
GHQ	General Health Questionnaire
ICD	International Classification of Diseases
ICF	Informed consent form
IFRC	International Federation of Red Cross and Red Crescent Societies
JRS	Jesuit Refugee Services
OFC	Orbitofrontal cortex
PTG	Posttraumatic growth
PTGI	Posttraumatic Growth Inventory
PTSD	Posttraumatic stress disorder
SARS	Severe acute respiratory syndrome

SASRQ	Stanford Acute Stress Reaction Questionnaire I
SASRQ II	Stanford Acute Stress Reaction Questionnaire II for DSM-5
SPSS	Statistical Package for the Social Sciences
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
USA	United States of America
WHO	World Health Organization
UN	United Nations
UNISA	University of South Africa

Chapter 1: Introduction

Disasters have the potential to cause loss of life and property, often occurring without warning and unpredictable in where or when it occurs, the extent of the impact and for how long it lasts (Halpern & Tramontin, 2007). Beyond the physical damage sustained to people and property, disasters may also have the potential to cause a wide range of mental health outcomes in survivors (Galea, Ahern, Resnick, & Vlahov, 2006).

Defining mental health and disorders

Mental health is defined by the World Health Organization (WHO) as:

> …a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (World Health Organization, 2008, para 1).

The WHO (2008) definition frames the individual as achieving an optimal balance through his/her ability to function within the social spheres of work and community, while developing coping strategies to deal with daily stresses. When the balance is disrupted by a threat in the external environment and the individual does not possess the coping strategies required, there is potential for pathology to occur.

Pathological responses are beyond the normative responses to disaster. In normative responses,

> …the range of normal responses to trauma includes acute fear for one's life, grief after the death of a loved one, and changed beliefs about the world. It may also involve social and practical challenges including the loss of material possessions, adapting to physical injury, uncertainty about the safety of family and loved ones, threat to social cohesion, and damage to physical infrastructure and social institutions that would otherwise assist the individual to cope. (Nickerson, Bryant, & Silove, 2010, p. 580)

Mental health outcomes may be normative, pathological and/or adaptive. The current study focused on pathological and adaptive outcomes. It is necessary to define the broader constructs which delineate mental health outcomes and survivors' capacity for pathological

and adaptive responses. Apart from allowing for a better understanding of the possible responses from exposure to disaster, these differences in responses influence decisions on prevention or treatment provided to survivors of disaster (American Psychiatric Association, 2013; Halpern & Tramontin, 2007). Pathological responses fall within the domain of mental disorders while adaptive responses are a reflection of a survivor's mental health or capacity for coping or growth. The American Psychiatric Association (APA) defines a mental disorder as:

> A syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning (American Psychiatric Association, 2013, p. 20).

A diagnosis does not always lead to treatment and not all individuals may meet the full criteria for a mental disorder (American Psychiatric Association, 2013). Exposure to a disaster or trauma and poor mental health outcomes are not mutually exclusive (Halpern & Tramontin, 2007). Instead, treatment may be necessitated by the presence of symptoms. Decisions on treatment are dependent on issues such as "…symptom severity [and] symptoms salience" (American Psychiatric Association, 2013, p. 20) and are integral to considerations on the type of mental health care to be provided during and after disasters.

Defining disaster in the context of mental health outcomes

The numerous definitions of disaster found in the literature show consistency in the central themes of the physical, harmful impact on individuals and their communities and losses associated with exposure (R. J. Ursano, Fullerton, Weisæth, & Raphael, 2007). In this study, a definition that captures the mental health response of humans exposed to disasters was important. In their definition of disaster, Shultz, Espinel, Galea and Reismann (Shultz, Espinel, Galea, & Reismann, 2007) define a disaster as "...an encounter between a hazard (forces of harm) and a human population in harm's way, influenced by the ecological context, creating demands that exceed the coping capacity of the affected community" (p.69). This definition offers an expansion on the physical harm and losses associated with the impact of a disaster by taking into account the psychological experience of disaster exposure. Shultz et al.'s (2007) definition was the most appropriate definition for the scope of this study.

Notwithstanding the varied definitions of disasters described, disasters may be distinguished by its source. Natural disasters are referred to in the literature as “acts of God” (Halpern & Tramontin, 2007, p. 23) or “meteorological disasters” (International Federation of the Red Cross and Red Crescent Societies, 2012, p. 226), and are not caused by humans. Examples of natural disasters include earthquakes, floods, and tsunamis (Halpern & Tramontin, 2007, pp. 23–24). Disasters caused by humans are the result of intentional acts or negligence on the part of humans. Airplane crashes, terrorism, and violence are examples of human-caused disasters (Halpern & Tramontin, 2007).

A global picture of disasters

Disasters are global phenomena. Over the last decade, select examples illustrate the spectrum of pathological and adaptive responses from exposure to human-made and natural disasters. During the Rwandan genocide between April and July 1994 (Kayiteshonga, 2012; Rieder & Elbert, 2013), approximately one million people belonging to the Tutsi ethnic group were killed. Rwandan survivors showed severe pathological responses decades after the event occurred (Heim & Schaal, 2014; Rieder & Elbert, 2013). On 9 September 2001, four aeroplanes were hi-jacked in the United States of America; two were flown into two World Trade Centre buildings in New York City (Farfel, DiGrande, Brackbill, Prann, Cone, Friedman, Walker, Pezeshki, Thomas, Galea, Williamson, Frieden, & Thorpe, 2008). The buildings collapsed and coupled with the hi-jacked planes resulted in the death of approximately 3,000 people (Farfel et al., 2008). Common mental health outcomes after exposure to 9/11 (New York City) were posttraumatic stress disorder (PTSD) and serious psychological distress, in 16% and 8% of the sample population respectively (Farfel et al., 2008). Palestinians living in the Gaza strip have been subjected to war for more than a decade (Khamis, 2012). Studies have shown that mental disorders, such depression, PTSD and anxiety are prevalent in this region for both adults and young children/ adolescents (Khamis, 2012).

Two major tsunamis occurred in 2004 and 2011. The Indian Ocean tsunami, in 2004, was caused by an earthquake, which killed approximately 250, 000 people (Frankenberg, Friedman, Gillespie, Ingwersen, Pynoos, Rifal, Sikoki, Steinberg, Sumantri, Suriastini, & Thomas, 2008). Posttraumatic stress reactions were highly prevalent in survivors, particularly those who were in the most affected areas (Frankenberg et al., 2008). The Japanese tsunami, in 2011, was caused by an earthquake and claimed the lives of 19, 846 people (International Federation of the Red Cross and Red Crescent Societies, 2012). A study

conducted on British National survivors of the nuclear accident triggered by the tsunami showed high levels of anxiety and anger about the event while 16% of the sample presented with distress (Rubin, Amlôt, Wessely, & Greenberg, 2012). In this study, distress was defined as an emotional response to the earthquake and subsequent tsunami and was assessed by the 12-item General Health Questionnaire (GHQ). The severity of distress was indicated by a score of 4 or higher on the 12-item GHQ (Rubin et al., 2012).

Disasters in South Africa. In South Africa, disasters are an uncommon occurrence thus resulting in a scarcity of studies, particularly into the mental health outcomes of people exposed to disasters. Over the past century, a few documented, natural-and human-caused-disasters have occurred (largely human-caused disasters) - see Table 1. The scarcity in studies served as the motivation for this study, with the focus of this study on the xenophobic violence which took place in May 2008.

Table 1

Disasters in South Africa (1896 - 2012)

Year	Disaster profile	Type of disaster	Disaster outcome
19th February 1896	An explosion in Johannesburg, caused by dynamite not stored correctly on a train	Human-caused	62 people died; approximately 200 seriously injured; and 3000 people lost their homes (“Dynamite explosion Braamfontein,” n.d.)
16th September 1986	Underground fire at Kinross Mine	Human-caused	177 mineworkers killed by smoke inhalation; 235 were injured and 1 person was reported missing (“More than 170 mineworkers are killed at Kinross mine, South Africa,” n.d.)
22nd February 1994	A collapsed dam wall causing flooding in Virginia (in the Free State)	Human-caused	17 people; 80 houses being swept away; and the severe damage of 200 other houses (Van Niekerk & Viljoen, 2005, p. 201)
11th April 2001	The Ellis Park Disaster - a	Human-caused	43 people died during the stampede (Bowley, Rein, Scholtz, & Boffard, 2004).

	stampede by spectators at Ellis Park Stadium, Johannesburg, Gauteng		
May 2008	Widespread violence in townships in South Africa due to xenophobic attitudes against refugees and migrants	Human-caused	62 people died (21 were South African); 80 000 to 200 000 displaced from their homes (Igglesden, 2008).
June 2009	Underground fire erupted at an abandoned Harmony Gold mining shaft, Free State	Human-caused	60 illegal miners died due to smoke inhalation (Macharia, 2009).
December 2010 – January 2011	Floods in eight South African provinces	Natural	41 people drowned ("South Africa declares flood disaster," 2011).
August 2012	Unprotected strike in Marikana, North West	Human-caused	34 people were killed when police shot at the miners (Marinovich, 2012).

The literature does not classify xenophobic violence as a disaster, despite it displaying the hallmarks of a disaster classification. In this study, xenophobic violence is suggested as a human-caused disaster according to Shultz, Espinel, Galea and Reismann's (Shultz et al., 2007) definition of disaster. There are four key elements to the authors' definition: (1) there must be a hazard or force of harm; (2) affecting a human population; (3) occurring within an ecological context; and (4) challenging the coping capacity of the affected population (p.69).

The nature and effects of xenophobic violence is complex. Until recently, much of the research has focused on the root causes of xenophobia, but there is an emerging focus on the effects of xenophobia, as an act of violence, termed xenophobic violence. Xenophobic violence is rooted within the South African socio-political discourse and presents unique challenges in its aftermath to the refugee and migrant community, as well as South Africa at large. While acknowledging the larger socio-political context in which xenophobic violence occurs, the intention of this study is specific to the mental disorder and health of the affected population (refugee and migrant community).

In May 2008, South Africans living in townships targeted refugees and migrants living in these townships, resulting in mass-casualties, -destruction and -displacement. The xenophobic violence lasted approximately one month; adversely affecting a large group of refugees and migrants. The *hazard* in the context of this study is human-on-human violence, termed xenophobic violence in the South African discourse. Xenophobic violence exemplifies violence emanating from xenophobic attitudes or xenophobia (Moyo, 2009).Crowther (1995) defines xenophobia as an attitude expressed through prejudice by an individual or group towards another individual or group because of their differences in religious beliefs or country of origin. In the May 2008 event, the xenophobic attitudes were expressed by some South Africans toward refugees and migrants living in South Africa. Thus, refugee and migrants were the *affected population*.

Xenophobic violence and its aftermath are not mutually exclusive. They are influenced by the *ecological context*, through the interactions of the relationships between "…social, psychological, anthropological, cultural, geographic, economic, and human context surrounding disasters …" (Shultz et al., 2007, p. 69). Xenophobic violence manifested itself during May 2008 through the destruction of property, theft of items belonging to refugees and migrants; and the killing of refugees and migrants (Moyo, 2009). People associated with refugees and migrants, by marriage and those perceived by perpetrators of xenophobic violence to be foreign were also targeted during the xenophobic violence (Moyo, 2009). This lead to the disruption of family networks. As the affected population, the refugee and migrant communities' *abilities to cope were challenged* by the xenophobic violence.

The act of xenophobic violence is not endemic to South Africa. Cases of xenophobic violence were reported in the United States of America (U.S.A.) after the 11 September 2001 terrorist attacks. The causal link was made between the attacks on the World Trade Center

and the Pentagon by 19 hijackers, who were members of Al Qaeda, a terrorist group and xenophobic violence (Springer, Lalasz, & Lykes, 2012). The incidences of xenophobic violence against Muslims reported around the U.S.A. after the 11 September event included cases of attacks on mosques, and a purposely torn copy of the Koran "left on the steps of the Islamic Center of Clarksville" (Human Rights First, 2007, p. 5). Ahmad (2002) discovered that within a year after the 9/11 attacks, there were approximately 1000 reported prejudice cases. These incidences of xenophobic violence and cases of prejudice are reported to continue more than a decade later.

The disaster mental health perspective and the transactional model of stress and coping

The disaster mental health perspective is rooted in the discipline of mental health (Halpern & Tramontin, 2007), emerging as a result of a paradigm shift in mental health (Bulling & Abdel Monem, 2009). Its origins can be traced to the observations of mental health practitioners providing mental health care in emergency situations, noting that pathological responses to disasters were significantly different to trauma such as child abuse or rape (Halpern & Tramontin, 2007). Disaster mental health is applied in practice through the identification of mental health disorders (screening for disorder symptoms) and the development of intervention programmes to address the needs of survivors (and emergency personnel) from exposure to a disaster (Halpern & Tramontin, 2007).

Over the past century, studies in pathological responses from exposure to disaster have been the focal point of research into mental health outcomes. The research findings showed that common mental disorders from exposure included: "…generalized posttraumatic distress…posttraumatic stress disorder (PTSD), anxiety, and depression, …somatization (expressing emotional distress through physical symptoms) as well as complicated grief and bereavement" (Halpern & Tramontin, 2007, p. 7).

Research into adaptive responses from exposure to disaster has grown over the last two decades, including concepts such as resilience and posttraumatic growth. Resilience is defined as:

> the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event such as the death of a close relation or a violent or life-threatening situation to maintain relatively stable, healthy levels of

> psychological and physical functioning…as well as the capacity for generative experiences and positive emotions (Bonanno, 2004, p. 20).

Posttraumatic growth (PTG) is defined as an "individual's experience of significant positive change arising from the struggle with a major life crisis" (Calhoun, Cann, Tedeschi, & McMillan, 2000, p. 521).Within the last two decades, there has been a significant expansion into the knowledge base of pathological and adaptive responses from exposure to disaster. Instead of research focused singularly on pathological *or* adaptive responses from exposure, researchers began to explore pathological *and* adaptive responses in affected populations. Scholars began to theorise that trauma or stress could be the catalysts required for an adaptive response to occur (Joseph & Linley, 2008; Tedeschi & Calhoun, 1995).

Tedeschi and Calhoun (1995) suggested that the occurrence of posttraumatic growth (PTG) is dependent on presenting posttraumatic stress symptoms. More recently, Lowe, Manove and Rhodes (2013) suggested that the stress response experienced brings about growth in survivors through their reflection on the experienced trauma. Similarly, Kaminer and Eagle (2010) proposed that a moderate stress response level was required because mild symptoms may not be a sufficient catalyst and "severe symptoms may prevent any reflective processing of the traumatic event" (Kaminer & Eagle, 2010, pp. 77–78). Some research findings are congruent with Kaminer and Eagle's theory, showing high levels of posttraumatic growth appearing at moderate levels of posttraumatic stress (Lowe et al., 2013).

There is no singular framework which underpins disaster mental health with many viewpoints suggested in the literature. Some scholars advocate strongly for a biomedical approach that focuses specifically on the identification of pathological disorders and the treatment thereof; while others suggest a sociological framework for disaster mental health (Bulling & Abdel Monem, 2009). Within this latter framework, there is a transactional relationship between individuals and the environment and their ability to perceive a threat as a stressful encounter, later through positive change shifting to one that encourages growth through secondary appraisals of the situation (discussed in more detail in Chapter 2). This transactional relationship is the foundation upon which the transactional model of stress and coping (Lazarus & Folkman, 1984) is built. Lazarus and Folkman (1984) define stress as the product of an imbalance between demands and resources. Coping is defined as "… constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person"

(Lazarus & Folkman, 1984, p. 141). The transactional model of stress and coping was applied to this study because it supports the notion that humans exposed to trauma or disaster may experience a pathological and adaptive response.

Acute stress disorder (ASD) and posttraumatic growth (PTG). The range of pathological and adaptive responses found in the literature is enormous. For the scope of this study, pathological and adaptive responses were limited to the selection of acute stress disorder (ASD) and posttraumatic growth (PTG) responses. Acute stress disorder is a pathological response and is classified as a mental disorder in the Trauma and Stressor-Related Disorders section of Diagnostic and Statistical Manual 5 (DSM-5) (American Psychiatric Association, 2013). It is associated with individuals who present with a specific symptom set from 3 days and within 30 days of exposure to a traumatic event (American Psychiatric Association, 2013). Posttraumatic growth (PTG) is an adaptive response, defined as "…the experience of positive change that occurs as a result of the struggle with highly challenging life crises" (Calhoun & Tedeschi, 2014, p. 1).

For acute stress disorder and posttraumatic growth to occur, an initial exposure to a traumatic event or disaster is required. Furthermore, the presence of distress symptoms is necessary for the occurrence of posttraumatic growth (Tedeschi & Calhoun, 1995). Moore, Gamblin, Geller, Youssef, Hoffman, Gemmell, Likumahuwa, Bovbjerg, Marsland and Steel (2011) emphasised posttraumatic growth and the individuals' transformation in the aftermath of stressful events that may shatter their assumptive world, requiring a reconceptualization of their fundamental beliefs about self, others, and about the future. At the core of PTG is the fundamental role coping and rumination played after exposure to a traumatic event (Calhoun et al., 2000). Persistent ruminations about the traumatic event, they stated, is what leads to the possibility of developing PTG. Persistent ruminations also present as a symptom for acute stress disorder and have the ability to be a catalyst for both pathological and adaptive outcomes (Figley, 2010). ASD and PTG were considered appropriate responses to explore in this study. ASD and PTG are expanded upon in Chapter 2.

Study Rationale

There is a dominant focus in the literature on trauma and disasters and responses to exposure. A review into disaster mental health literature spanning over a decade (Doherty, 1999; Kinston & Rosser, 1974) and into more recent research on the psychological sequelae

of disasters on affected populations (Dekel, Mandl, & Solomon, 2011; Helms, Nicolas, & Green, 2011; Kashdan & Kane, 2011; Misago et al., 2010; Mortimer, 2010) stimulated the current study.

Research into the post-migration context of refugees and migrants is not well established (Warfa et al., 2012). Similarly, there is little evidence on the challenges that exist when they are exposed to disaster or trauma within this post-migration context. The disaster milieu and women's responses from exposure to a disaster was of particular interest to the researcher. The literature highlighted that responses to disaster are gendered, with women being at higher risk for vulnerability to pathological responses and as having a greater capacity for adaptive responses (Enarson, Fothergill, & Peek, 2007). The May 2008 xenophobic violence was an event that resonated with the researcher and so the study of exploring pathological and adaptive responses and shared experiences of refugee and migrant women from exposure to xenophobic violence was conceptualised.

Significance of the study

The xenophobic attacks in May 2008 were unprecedented and resulted in numerous physical and psychological consequences among refugees and migrants (Medecins Sans Frontieres, 2008). During and after the occurrence of disasters, mental health interventions are required in conjunction with the medical care given. This was evident during the xenophobic violence of May 2008, with pleas from the humanitarian community for mental health care to be provided to survivors (Medecins Sans Frontieres, 2008).

The recommendation made by organisations such as the International Federation of the Red Cross and Red Crescent Societies (IFRC), the World Health Organization (WHO), and the United Nations (UN) is for the incorporation of a mental health care aspect in disaster preparedness programmes. In order for strong and sound recommendations to be made to such agencies, empirical evidence must support these recommendations. One of the ways in which this is accomplished is by studying the affected populations and assessing what their mental health needs are after a disaster (Rudenstine & Galea, 2011).

Studies into pathological responses might by implication provide insight into the mental health needs of affected populations; while studies on adaptive responses may give a perspective of how well humans cope in a given disaster setting. From a disaster mental health perspective, such studies may inform the development of intervention programmes in

mental health care in disaster settings. This is especially relevant for xenophobic violence as it is an ever-present threat in South Africa, as demonstrated by the 2015 xenophobic events (Hall, 2015).

Aim and research questions of the study

The purpose of the study was to explore the mental health outcomes and shared experiences of refugee and migrant women exposed to xenophobic violence, which is positioned within the current research as a human-caused disaster. The aim was to generate knowledge which describes the mental health outcomes of refugee and migrant women after exposure to xenophobic violence (human-caused disaster). A mixed methods approach was appropriate to this study because it focused on two activities associated with the disaster mental health perspective: exploring mental health outcomes and the shared experiences of survivors through narratives.

Acute stress disorder (ASD) symptoms and posttraumatic growth (PTG) were elicited through questionnaire administration (quantitative) and the shared experiences were gathered through open-ended questionnaire responses (qualitative) and semi-structured interviews with survivors (qualitative). After giving voluntary, written consent, participants were asked to complete two self-administered questionnaires: (1) the Stanford Acute Stress Reaction Questionnaire II (SASRQ for DSM-5), which measures ASD symptoms (Cardeña, Classen, Koopman, & Spiegel, 2014); and (2) the Posttraumatic Growth Inventory (PTGI), which measures PTG (Tedeschi & Calhoun, 1996). Participants were also invited to participate in semi-structured interviews and interviews took place once voluntary, written consent was given. The quantitative study answered the following research questions:

Quantitative research question 1. Do refugee and migrant women exposed to xenophobic violence (human-caused disaster) show acute stress disorder (ASD) symptoms?

Quantitative research question 2. Do refugee and migrant women exposed to xenophobic violence (human-caused disaster) show posttraumatic growth (PTG)?

Quantitative research question 3. Is there a relationship between acute stress disorder (ASD) symptoms and posttraumatic growth (PTG) in refugee and migrant women exposed to xenophobic violence (human-caused disaster)?

The qualitative study used a phenomenological approach to answer the qualitative research question:

Qualitative research question 4. What are the experiences of refugee and migrant women exposed to xenophobic violence (human-caused disaster)?

This study followed a mixed methods design and thus required a mixed methods research question:

Mixed method research question 5. To what extent is there concurrence between the quantitative and qualitative results on the mental health outcomes and experiences of refugee and migrant women from exposure to xenophobic violence (human-caused disaster)?

Terminology

There is an intricate set of terminologies in the disaster mental health literature. Some of the terminologies are used interchangeably throughout the study and are reflective of the interchangeable use in the literature.

Disaster, trauma, or traumatic event. In this study, the terms “disaster” and “trauma” or “traumatic event” are used to denote the events that cause physical and mental harm to those who are exposed to it. “Trauma” in the context of a disaster refers to a “stimuli of a catastrophic nature” (Kaminer & Eagle, 2010, p. 2) impacting the victim severely either by threat, as in the case of violence, or individuals witnessing the deaths of others and physical harm (Aldwin, 2012).

Traumatic stress, stress and trauma. Similarly, “traumatic stress”, “stress” and “trauma” are a language reflective of the mental health outcomes of exposure to a disaster or traumatic event. The word “stress” describes the reaction to events in daily life that are considered minor, such as “commuting in traffic” (Resick, 2001, p. 2). “Trauma” in the context of mental health refers to “a notion of psychological wounding and the penetration of unwanted thoughts, emotions and experiences into the psyche or being of a person” (Kaminer & Eagle, 2010, p. 2). “Traumatic stress” is distinguished “from other forms of stress by the severity of both the stressor and the response”(Kaminer & Eagle, 2010, p. 2).

Victim, survivor, client and those impacted. The literature reveals diverse descriptors for an individual who has been exposed to disaster: “victim”, survivor, client and those impacted” (Halpern & Tramontin, 2007, p. 6). These descriptors are seen as labels, particularly victim, as it is “disempowering” and “evoked images of the deceased rather than living” (Halpern & Tramontin, 2007, p. 6). Halpern and Tramontin (2007) further argue that although ‘survivor’ has a more positive connotation to it, in drawing “attention to a person’s strength and inherent ability to heal and overcome a terrible event, it has “lost its appeal”. The descriptors, “survivors” and “those impacted” are used in this dissertation to describe people exposed to disaster, because of the positive connotation of the word “survivor” and “those impacted”.

Resilience, coping and posttraumatic growth (PTG). The literature describes “resilience” and “posttraumatic growth” as adaptive responses in individuals after exposure to disaster. The critique from scholars is divided: Tedeschi and Calhoun argue that resilience and posttraumatic growth are two clearly distinct adaptive responses, with PTG being “transformative [and] resilience is not” (Calhoun & Tedeschi, 2014). The current study is focused on posttraumatic growth and upholds the distinction between posttraumatic growth and resilience.

Who is a refugee? Who is a migrant? Refugees, asylum seekers, and migrants are the terms used to describe people from other countries who settle in countries other than their own. The distinguishing characteristic of these terms is their reasons for coming into South Africa. Migrants may refer to international or internal migrants (Dalton-Greyling, 2008; Kok, 1999). The United Nations High Commissioner for Refugees (UNHCR) defines an international migrant through their voluntary movement from their country of origin for economic reasons and can return to their country of origin at any time (United Nations High Commissioner for Refugees, 2006).These countries of origin are not experiencing war, genocide or any other human rights violations from which fears of persecution arise. An internal migrant is a South African who migrates within the provinces of South Africa. Internal migrants are not included in this study.

> A refugee is an individual who “…owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his [or her] nationality and is unable or, owing to such fear, is unwilling to avail himself [or herself] of the protection of that

> country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it (United Nations High Commissioner for Refugees, 2006). This definition is incorporated by the South African Department of Home Affairs into its Refugee Act No.130 of 1998 (Department of Home Affairs, 1998).

Migrants and refugees are distinguished from each other based on their country of origin and reasons for migrating to another country (Kinzie, 2010). In the study, a distinction is made between migrant and refugee based on demographic (country of origin) information and not by asking participants for their status – referring specifically to the legal status granted by the South African Department of Home Affairs. The researcher made this decision because of sporadic but persistent incidences of xenophobic violence after the May 2008 event and the researcher's responsibility to keep the participants' details confidential and not compromise their safety through status identification.

Definition of terms

Acute stress disorder (ASD): is a mental disorder associated with the presence of at least nine symptoms from five categories, occurring within 30 days from exposure to a traumatic event (American Psychiatric Association, 2013).

Disaster: is a traumatic event of "...an encounter between a hazard (forces of harm) and a human population in harm's way, influenced by the ecological context, creating demands that exceed the coping capacity of the affected community" (Shultz et al., 2007).

Disaster mental health: is a sub-discipline of mental health defined as "A competency-based intervention model, based on disaster-related psychopathology, that addresses a community's mental health needs" (Piotrowski & Vodanovich, 2010, p. 389).

Human-made or-caused disaster: represent a type of disaster and is defined as the events caused by error or the purposeful actions of humans (Ursano et al., 2007).

*Migrant: is defined as the "*international migrant through their voluntary movement from their country of origin for economic reasons and can return to their country of origin at any time"(United Nations High Commissioner for Refugees, 2006).

Normative response: "…the range of normal responses to trauma includes acute fear for one's life, grief after the death of a loved one, and changed beliefs about the world…social and practical challenges including the loss of material possessions, adapting to physical injury, uncertainty about the safety of family and loved ones, threat to social cohesion, and damage to physical infrastructure and social institutions that would otherwise assist the individual to cope" (Nickerson et al., 2010, p. 580).

Posttraumatic growth (PTG): is "...the experience of positive change that occurs as a result of the struggle with highly challenging life crises" (Calhoun & Tedeschi, 2014, p. 1).

Refugee: This is a person "…who has been forced to flee his or her country because of persecution, war, or violence" (United Nations High Commissioner for Refugees, 2006).

Stress: is a human condition constituting "…a physical, chemical, or emotional demand that causes bodily or mental tension and may be a factor in disease causation" (Figley, 2010, p. 589).

Trauma or traumatic: is "The demands caused by a trauma either physical, chemical, emotional, or a combination thereof, that causes bodily or mental tension and may be a factor in disease causation" (Figley, 2010, p. 589).

Traumatic situations: "Situations that often lead to trauma" (Valent, 2010, p. 613).

Xenophobia: it is an attitude expressed through prejudice by an individual or group towards another individual or group because of their differences in religious beliefs or country of origin (Crowther, 1995).

Chapter outline

The literature review is covered in Chapter 2 and focuses on the disaster mental health perspective and the transactional model of stress and coping; an overview of responses to disaster; acute stress disorder (ASD) in the DSM-5; posttraumatic growth (PTG); and retrospective memory and its challenges.The study method is discussed in Chapter 3, in addition to the theoretical and philosophical framework; ethical considerations in research and the quantitative, qualitative and mixed methods research design.The results chapter (Chapter 4) is focused on the quantitative results; qualitative results; and the integration of quantitative and qualitative findings. The discussion chapter (Chapter 5)

incorporates the findings as it relates to the literature. Chapter 6 concludes with the limitations and recommendations for future research.

Conclusion

When disasters strike, the aftermath may include physical harm, damage and psychological sequelae experienced by the affected population. The mental health outcomes from exposure to disaster are wide-ranging and complex, particularly when the affected population are refugees and migrants. Responses may vary between normative, pathological, and adaptive. Normative responses are characterised by the individual returning to balanced functioning within a period, whereas pathological responses develop when the individual is unable to return to balanced functioning. On the other hand, adaptive responses involve an individual's capacity for growth after experiencing a disaster or traumatic event. Refugees and migrants living in South Africa were adversely affected during the May 2008 xenophobic violence. The gendered nature of disaster response draws attention to women's heightened vulnerability during disaster situations.

Chapter 2: Literature review

Disaster mental health is an interdisciplinary response to the associated mental health outcomes of survivors from exposure to disaster and is illustrated through its disaster taxonomy and range of responses to traumatic events. The impact of disasters is multi-dimensional, affecting individuals and communities who are exposed (Halpern & Tramontin, 2007; Ursano et al., 2007) and the emergency caregivers (Halpern & Tramontin, 2007). The scope of this dissertation is limited to women who were exposed to xenophobic violence (occurring in May 2008).

There is a plethora of literature in the field of mental health coupled with a broadening of knowledge through the emergence of the disaster mental health perspective (Halpern & Tramontin, 2007). The voluminous literature highlights varied responses after exposure to disaster, including normative, pathological and adaptive responses (Friedman, 2006; Jia et al., 2013; Shigemura, Tanigawa, & Nomura, 2012; van der Velden, Wong, Boshuizen, & Grievink, 2013) (Bonanno & Mancini, 2008; Kessler, Galea, Jones, & Parker, 2006; Shultz et al., 2008). The bulk of these studies demonstrates that survivors may show normative, pathological or adaptive responses after exposure to natural or human-caused disasters. The current study focused on two variables, namely pathological and adaptive responses from exposure to human-caused disaster.

A few studies have focused on the relationship between pathological and adaptive responses, but the findings have been contradictory. However, there is a dearth of studies investigating pathological *and* adaptive responses in a single group of survivors after exposure to disasters. Hence, this research study explored acute stress disorder (ASD) and posttraumatic growth (PTG) responses of survivors after exposure to xenophobic violence (human-made disaster) using a mixed methods approach. Acute stress disorder and posttraumatic growth being common responses in survivors (Kessler et al., 2006; Santucci, 2012; Ursano et al., 2007).

Researchers studying the relationship between pathological stress symptoms and posttraumatic growth have yet to demarcate a clear link between the two: studies increasingly show contradictory findings in the relationship between pathological and adaptive responses (Pat-Horenczyk & Brom, 2007). While some studies conducted have found a “negative relationship between distress and growth, others have found none, and fewer have found a

positive relationship between these two variables" (Cobb, Tedeschi, Calhoun, & Cann, 2006, p. 896). A lack of consensus in findings on pathological and adaptive responses has dominated the literature. Some studies have shown a negative relationship between posttraumatic growth and distress in refugee and displaced people in Sarajevo and Israeli survivors of terrorism (human-caused disaster), while others have shown mixed results (Chan & Rhodes, 2013; Linley & Joseph, 2004).

Bradshaw, Ohlde and Horne (1991) have presented alternative findings that show a paradoxical relationship between PTSD and being Vietnam veterans (as cited in Hunt, 2010). Bradshaw et al. (1991) discovered that "[m]any Vietnam veterans keep alive their memories of the war because they are significant and meaningful. Many continue to suffer from PTSD because of this" (as cited in Hunt, 2010, pp. 77–78). This paradox demonstrates the complexities of pathological disorders and adaptive responses in survivors after exposure to disaster. The variations in studies of pathological disorders and adaptive responses may be attributed to a lack of consensus on operationalising posttraumatic growth, issues in measurement (Pat-Horenczyk & Brom, 2007) or different research methodologies used (Kaminer & Eagle, 2010).

This chapter consists of a discussion on the disaster mental health perspective (Halpern & Tramontin, 2007), taking into account its history, fundamentals of the field through its disaster taxonomy and recommendations for the classification of xenophobic violence as a disaster. A discussion on pathological and adaptive responses in survivors of disaster follows, detailing the state of the literature on acute stress disorder symptoms and posttraumatic growth. Subsequently, the complexities of refugee and migrant populations with a focus on women are discussed. Then, an exposition of an integrated framework for disaster mental health through Lazarus & Folkman's (1984) transactional model of stress and coping is presented, with biological or physiological theories of responses to disaster to illustrate bodily stress reactions. A penultimate discussion focuses on the fallibility and infallibility of memory and recall bias.

Setting the disaster scene: Classifying disasters

Disasters are classified as two distinct types, natural or human-made (also termed man-made), and shaped by its causes (R. J. Ursano et al., 2007). Natural disasters are sub-categorised into hydro-meterological, geophysical and geomorphologic (Koffi Isidore, Aljunid, Kamigaki, Hammad, & Oshitani, 2012). Hydro-meteorological disasters involve disasters caused by water. An example of a hydro-meteorological disaster is flooding (Koffi Isidore et al., 2012). Geophysical disasters include events involving earth structural changes, such as earthquakes, while avalanches and landslides are categorised as geomorphologic disasters (Koffi Isidore et al., 2012). Epidemics are also included in the disaster literature and are described as a type of natural disaster (Halpern & Tramontin, 2007), with a greater probability of poor mental health outcomes in those affected (Santucci, 2012). In a study conducted on the outcomes of healthcare providers, two-thirds of workers experienced “intense emotional reactions” during a severe acute respiratory syndrome (SARS) outbreak (Santucci, 2012, p. 133).

Human-caused disasters include events caused by error or the purposeful actions of humans (R. J. Ursano et al., 2007), causing extensive pathology in those affected when compared with other types of disasters (Halpern & Tramontin, 2007; Santucci, 2012). The distinction is made in the inescapable characteristic of natural disasters and the perceived control human beings’ have over their own actions. It is this notion of control or choice to not act in a harmful manner that results in survivors’ perception of betrayal and therefore, “more psychological distress” (Halpern & Tramontin, 2007, p. 30). However, Santucci (2012) warns that the impact of natural disasters should not be underestimated and that determinants of the severity and incidences of pathology are related to external stimuli in the environment being appraised as threatening.

Contemporary debate on disasters is focused on the influence of humans in natural disasters, specifically how poor infrastructure reacts to the disaster and not the event itself. Halpern and Tramontin (2007) explain that after an earthquake (a natural disaster) occurs, the vast majority of deaths are caused by buildings collapsing due to poor construction (human-caused). The disaster (earthquake) remains a natural event. Similarly, Ursano et al., (2007) point to the increasing difficulty in distinguishing between natural and human-caused disaster, which may necessitate a review of the current disaster taxonomy.

Xenophobic violence as a human-caused disaster. This study explored acute stress disorder symptoms, posttraumatic growth and the experiences of refugee and migrant women after exposure to xenophobic violence. Xenophobic violence has not been suggested as an example of a human-caused disaster in the literature. Rather, common examples of human-caused disaster given in the literature are terrorism (Halpern & Tramontin, 2007; Santucci, 2012; Ursano et al., 2007); war (Ursano et al., 2007); arson, transportation disasters, toxic waste and nuclear accidents (Halpern & Tramontin, 2007). Reference is made to mass violence involving groups (Ursano et al., 2007) but not specifically to xenophobic violence. This may be because of the complexities of the socio-political roots of xenophobic violence. The literature is unclear on why xenophobic violence is not classified as a disaster, despite an event like the May 2008 attacks displaying the hallmarks of a human-caused disaster when applying Shultz, Espinal, Galea & Reismann's (Shultz et al., 2007) definition of disaster (discussed in Chapter one).

Xenophobia is a complex issue underpinned by social and political discourses. The complexities exist in the nature and causes of xenophobic violence, particularly in the South African context. Misago, Monson, Polzer and Landau (Misago et al., 2010) explain xenophobic violence in South Africa as being "…rooted in…institutional history and decades of political rhetoric" (p.32). They elaborate on the legacy of apartheid and its influence on post-apartheid thinking in South Africa, specifically related to beliefs and perceptions of people from different ethnicities and cultural groups (Misago et al., 2010). In their study, they discovered the causes of xenophobic violence of May 2008 to be contextualised through township politics, further aggravated by social and macro political factors (Misago et al., 2010). In a study on South Africans' attitudes towards foreign nationals, Harris (2001) found unreceptive and prejudicial attitudes evident in the majority of participants (p13). These attitudes are the hallmarks of xenophobia and the drivers of xenophobic violence.

In 2010, the Consortium for Refugees and Migrants in South Africa (CoRMSA) conducted an eight month study into the perceptions of South Africans towards migrations and foreigners. Their findings supported the Harris study (conducted in 2001), illustrating that a decade later a proportion of South Africans in their study continue to have prejudiced perceptions towards migration and foreigners and these negative perceptions heighten already existing tensions in South African communities (Consortium for Refugees and Migrants in South Africa, 2011). In light of the most recent xenophobic violence taking place

in January 2015 and April 2015 and the ever-present threat of continued attacks in South Africa, the classification of xenophobic violence as a human-made disaster may have implications for disaster management responsiveness in South Africa.

Surviving disaster: Xenophobia/ xenophobic violence and mental health of refugees and migrants. Migration across African borders occurs due to voluntary reasons such as economic opportunity, and/or to join family members, or involuntary reasons such as natural and human-caused disasters. As indicated in Chapter 1, there are differences in the term migrant and refugee: migrants come to South Africa for voluntary reasons, while refugees migrate to South Africa because of involuntary reasons. South Africa is often chosen as a host country for both refugees and migrants because it is perceived as a country able to provide sanctuary and economic stability (Harris, 2001).

Kinzie (2010) describes experiences in "phases of stress" (p.621) (see Table 2), particular to the multiple traumas refugees experience in the pre-and post-migration context. These phases of stress may also be relevant to migrants, who may leave their countries because of poor economic opportunities, social and political upheaval. Refugees experience stresses that are "diverse, multiple, and frequently catastrophic" (Kinzie, 2010, p. 621). Cloitre, Curtois, Charuvastra, Stolbach and Green (2011) describe these multiple traumatic events as repetitive exposure to more than one trauma. The exposure to more than one traumatic event or disaster may be referred to as secondary adversities (Pfefferbaum, 2005). For refugees and migrants, secondary adversities occur during the resettlement period in the host country and may include: "…displacement and relocation, property and economic loss, family and social problems, and disrupted interpersonal support networks (Laor et al., 1996; Najarian, Goenjian, Pelcovitz, Mandel, & Najarian, 1996; Sack, Clarke, & Seeley, 1996; Shaw et al., 1995 as cited in Pfefferbaum, 2005, p. 23). This exposure does not automatically equal vulnerability to mental disorder(s) as cultural factors may act as buffers that strengthen the capacity to cope (Loue & Sajatovic, 2012).

Table 2

Kinzie's phases of stress

Phase of stress	Characteristics
Pre-flight	• poor economic conditions • food shortage • famine • political persecution • social upheaval • violence
Flight & separation	• multiple physical and social traumas • sense of being isolated
Asylum Resettlement	• unemployment • social isolation • prejudice • minority status

(Source: Kinzie, 2010, p.621).

Xenophobia is a social construct. It denotates actions perpetrated against others by groups or by individuals and permeates through all spheres of life: "workplace, schools, and other community settings" (Mian & Pumariega, 2011). Xenophobic violence is a product of xenophobia (Carll, 2007). Notwithstanding the conceptual differences, refugee and migrant groups were mutually exposed to the xenophobic violence during May 2008 where xenophobic attitudes were reported in the media to have progressed to acts of violence (Masuku, 2011; Peete & du Plooy, 2006). The violence began in the township of Alexandra (North of Johannesburg) and spread to other areas in South Africa (Kwa-Zulu Natal and the Western Cape). It is reported that the attacks began as a result of local South Africans in informal settlements accusing foreigners of occupying jobs that belonged to South Africans (Masuku, 2011). Those events were the culmination of prejudice that had been developing for years prior. In 2006, the media reported attacks on foreigners in an informal settlement in Olievenhoutbosch, south of Pretoria (Peete & du Plooy, 2006). In some instances, South Africans were also the target of xenophobic violence.

Poor and prolonged mental health outcomes may be associated with the experience of xenophobia (Carll, 2007, p. 289). The exposure to xenophobic violence is contextualised as refugee and migrant women affected because they have experienced xenophobic violence after settling in South Africa, using the term post-migration context to refer to the period of arrival or settlement (pre-2008). Xenophobia may cause poor physical and mental health outcomes (Loue & Sajatovic, 2012). During the May 2008 xenophobic violence in South Africa, the community of refugees and migrants were the affected population.

Disasters that affect whole communities may damage the social fabric of those communities, not only through displacement, but also through the disruption of the family structures due to death or disappearance of a family member (Zakour, 2012). In the May 2008 xenophobic violence, this displacement was evident through the refugee camps set up by the UNHCR, after an estimated 80 000 to 200 000 refugees were displaced from their homes (Consortium for Refugees and Migrants in South Africa, 2011). The death of a family member adversely affect the immediate family structure and beyond (friends and neighbours), further disrupting the social networks crucial for recovery (Norris, 2001; Bolin, 2007, as cited in Zakour, 2012). Displacement also occurs within families immediately after a disaster takes place: Families may separate from each other while finding safety and substantial time may pass before they find each other again (Zakour, 2012). Displacement has adverse effects on the mental health of survivors, particularly women. A study by Viswanath, Maroky, Math, John, Cherian, Girimaji, Benegal, Hamza, and Chaturvedi (2013) highlighted displacement and gender differences with displacement being associated with the prevalence of psychiatric disorders in women.

Networks are not limited to family and neighbours and may include the workplace (Zakour, 2012). In the case of the xenophobic violence, many survivors were unable to return to work due to fears for their safety and may have lost access to the supportive network provided at the workplace. Resource depletion further compounds the disaster situation, more especially recovery (Zakour, 2012). The recognition of the refugee and migrant response as a community one has implications for research outcomes, particularly around encouraging "…resilient healthy behaviors, sustain the social fabric of the community, and facilitate recovery" (Institute of Medicine, 2003; Ursano, Norwood, Fullerton, Holloway, & Hall, 2003 as cited in (R. J. Ursano et al., 2007, p. 5).

The multiple exposures to traumatic events are termed a complex posttraumatic disorder. Janet Herman (1997) first used the term, complex posttraumatic stress disorder (CPTSD), to describe the constrictive and compounded nature of trauma creating circumstances where the victim cannot escape. There is debate surrounding its existence and diagnosis as well as the argument for and against CPTSD inclusion in the Diagnostic and Statistical Manual 5 (DSM-5) (Weiss, 2012). By publication of the DSM-5 in May 2013, complex PTSD was not included. Notwithstanding the debate, CPTSD has salience in the refugee experience and can be conceptualised through research that indicates strong associations between previous and current trauma on mental health disorder and growth. Previous traumas are described by Kinzie (2010) in his phases of stress as experienced by refugees in the pre-flight phase. While CPTSD is acknowledged in this study as an important component of mental health outcomes, it does not fall within of the scope of this study and its inclusion is limited to the discussion presented here.

Other research shows that maladaptive responses in refugees after exposure to disasters include depression in Salvadoran women (Bowen, Carscadden, & Beighle, 1992); acute stress disorder and posttraumatic stress disorder in trauma survivors from explosion (Elklit & Christiansen, 2009); and somatisation (Westermeyer, Bonafuely, Neider, & Callies, 1989).

A gendered lens for mental health outcomes after exposure to xenophobic violence

Reports from the disaster workers and from survivors are clear: gender issues are relevant in disaster settings (Enarson & Haworth Brockman, 2008). Gender is an integral part of society, shaping the social order of interactions between men and women of all ages (Enarson & Haworth-Brockman, 2008). Gender matters become a focal point and disparities are brought to the forefront when they intersect with disasters (Enarson & Haworth-Brockman, 2008). Scholars have shown that refugee women are greatly disadvantaged in many facets of life: poorer mental and physical health outcomes, lack of economic and educational opportunities, and women are subjected to greater poverty, compared to their male counterparts (Ganguly-Scrase & Vogl, 2008).

Gender relations have a profound effect on mental health outcomes, hindering recovery and intensifying vulnerability during disasters. Gender interacts with demographic descriptors to exacerbate disparities (Enarson & Haworth Brockman, 2008, p.2). The same

authors refer to ethnic-related violence (a term used to describe xenophobic violence) and its intersection with gender, which further disadvantages women in disaster situations (Enarson et al., 2007). Haines (2003) criticises the inaction of key decision-makers to incorporate a gendered lens, claiming that it leads to further disadvantaging refugee women. Hence, there is a need for a gendered lens through which to view xenophobic violence.

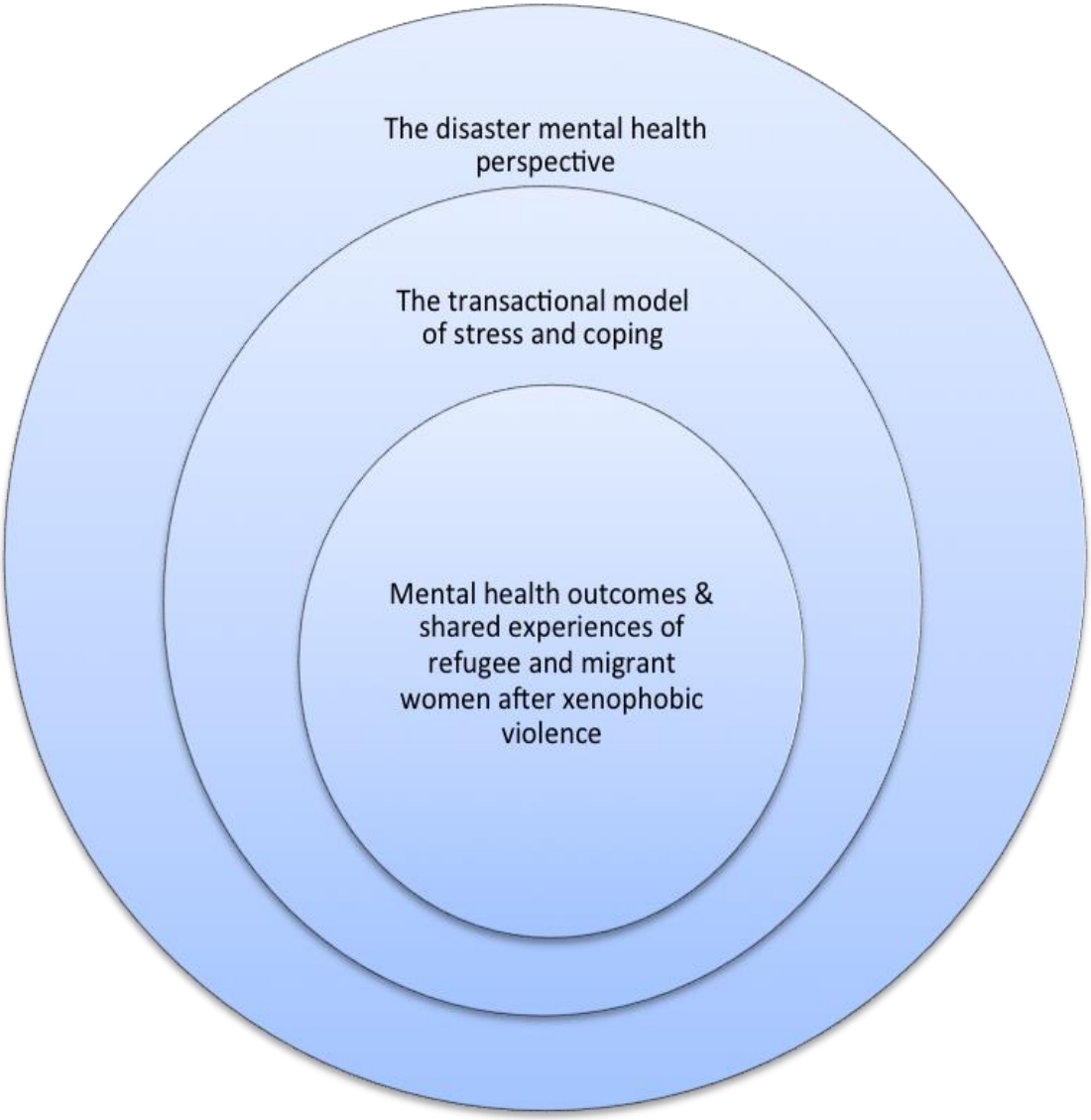
During the xenophobic violence in May 2008, refugee [and migrant] women were at increased risk of attack (Sigsworth, Ngwane, & Pino, 2008). Sigsworth et al (2008) explain the elevated risk as the result of the violence against refugees [and migrants] *and* gender-based violence (GBV). Similarly, Enarson and colleagues describe women as differentially and negatively affected by disasters and being at a greater disadvantage due to injury or physical harm and displacement (Enarson et al., 2007). Norris and others found that women are also at higher risk for presenting with pathological disorders (as cited in Halpern & Tramontin, 2007). During disasters, these disparities cut across multi-faceted spheres of life, i.e. "…personality, intimate relationships, mental and physical health, kinship networks, work and workplaces, social roles, and community life are dramatically in play when families and communities struggle to cope with the unexpected." (Enarson & Haworth-Brockman, 2008, p. 8).

An integrated approach to pathological and adaptive responses after exposure to disaster

Research into the field of trauma and disasters has increased over the last decade with several theories offered to explain the findings (Resick, 2001). The field of disaster mental health has its foundation in the discipline of stress and trauma studies and therefore, stress and trauma theories are mainly used in explaining the presence of pathological responses in survivors (Resick, 2001). However, stress and trauma theories focus on pathological responses and cannot explain survivors' capacity for growth. A framework that considered both types of responses, in addition to the interplay between acute stress symptoms and posttraumatic growth was required. Lazarus and Folkman's (1984) transactional model of stress and coping considers both types of responses and, therefore, was deemed appropriate for the study. In this study, it is encompassed by the disaster mental health perspective. The integrated approach is illustrated in Figure 1.

Figure 1

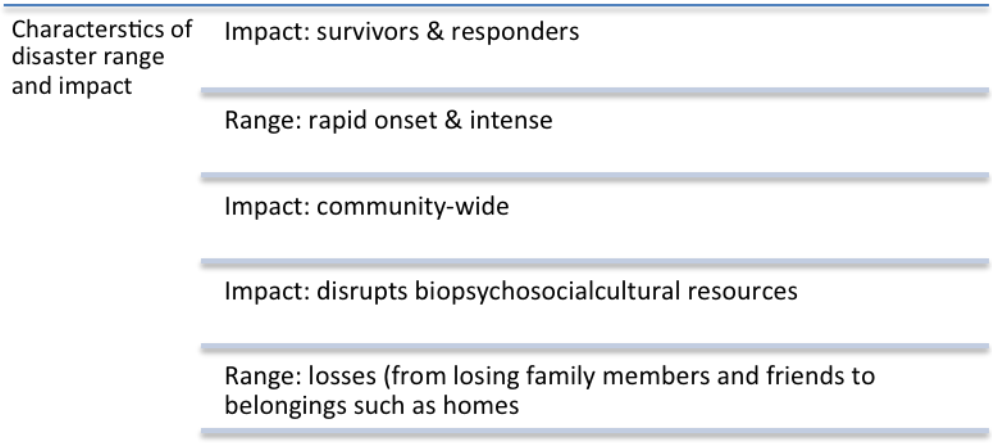
An integrative approach to this study



The disaster mental health perspective. The disaster mental health perspective extends the characteristics of disasters beyond the disaster itself, including the multi-level range of impact a disaster has on its survivors (and responders) and post-disaster intervention activities (Bulling & Abdel Monem, 2009; Halpern & Tramontin, 2007). Shultz and others definition of disaster supports the disaster mental health perspective because it takes into account the disaster itself and expands on the range and impact of the disaster on survivors (Shultz et al., 2007). Halpern and Tramontin (2007) describe five characteristics of the event and the range of impact (illustrated in Figure 2).

Figure 2

Five characteristics of event and range of impact



(Source: Halpern & Tramontin, 2007, p. 5)

Set against the backdrop of the disaster mental health perspective, this study embraces two of its key tenets through its mixed methods approach: determining the existence of symptoms and exploring the narratives of survivors. The field of disaster mental health is concerned with the mental health interventions required immediately after the occurrence of a disaster (Bulling & Abdel Monem, 2009). It involves immediate screening for mental disorders, with recommendations for longer-term interventions done by professionals from the local community (Bulling & Abdel Monem, 2009). Apart from screening for disorder symptoms, other post-disaster activities include interventions such as public awareness campaigns and outreach programmes (Bulling & Abdel Monem, 2009, p. 761). Through outreach and public education, survivors are made aware of normative stress reactions (see below) and through identifying disorder symptoms in survivors, appropriate intervention programmes can be implemented (Bulling & Abdel Monem, 2009).

Disaster mental health uses traditional medical model applications to screen for symptoms in survivors and encouraging the narratives of survivors of disaster (Bulling & Abdel Monem, 2009; Halpern & Tramontin, 2007). The traditional medical model is steeped in a symptoms-based approach, where disorders are classified according to clustering of symptoms. Bennett (2011) describes a disorder as an illness, marked by the absence or presence of symptoms related to a larger diagnostic criteria/label, for example, acute stress disorder (ASD).

It is not uncommon that this clinical view imposes a clinical treatment (e.g. medication) as it is underpinned by the medical model, which is rooted in Emil Kraepelin's work (Bennett, 2011). Kraepelin pioneered the syndrome approach in the late nineteenth century, where each illness had a common set of discrete symptoms which constituted the diagnostic label or disorder (Bennett, 2011). The WHO's International Classification of Disease (ICD) was founded on Kraepelin's classification system (Ramsden, 2013). The American Psychiatric Association (APA) developed their own classification system of mental disorders, the Diagnostic and Statistical Manual (DSM) (American Psychiatric Association, 2000). The DSM is a standardised guide to assist clinicians in identifying symptoms and appropriate treatment plans (American Psychiatric Association, 2013). It is also used by students for educational purposes and researchers exploring mental disorders in the field (American Psychiatric Association, 2013). A standardised reference tool for use in the research field allows for a standard symptom conceptualisation (Bennett, 2011). The DSM is currently in its fifth edition (DSM-5), published in 2013 (American Psychiatric Association, 2013) and is used in the current study.

Origins of the disaster mental health perspective. Disaster mental health had its early beginnings in World War I, when emergency care workers treating soldiers observed that many of the soldiers began showing symptoms of what came to be known as 'shell shock', 'battle fatigue' and 'combat stress' (Bulling & Abdel Monem, 2009, p. 1). An emergent body of evidence (since the 1960s) reveals that the prevalence of mental health disorders associated with the impact of disasters is recognised as a global epidemic and a public health issue. It was in 1965 that the disaster mental health became a formalised field through the work of Erich Lindemann, a mental health professional. Lindemann recounted his observations while treating survivors of the Coconut Grove Club disaster in which 493 people were burned to death after a fire broke out in the club (Bulling & Abdel Monem, 2009). His experience with the 46 survivors and his observations led him to describe the "disaster syndrome" which later became known as "survivor syndrome" (Bulling & Abdel Monem, 2009, p. 4). Notably during this period,

researchers included general populations in their studies, such as survivors of war, and developed a particular interest in terrorism and hostage situations (Halpern & Tramontin, 2007). Similarly, in a 1979 study on terrorist bombings, Sims, White, and Murphy found that survivors presented with a debilitating “aftermath neurosis” (as cited in Halpern & Tramontin, 2007, p. 57).

In the mid-1980s, mental health practitioners, specifically those concerned with providing mental health care or psychological first aid during emergencies, began to realise that the field of disaster mental health needed its own taxonomy. According to the Halpern and Tramontin (2007), disasters have the potential to evoke trauma in those that experience them, suggesting that the mental health outcomes vary from person to person. The authors observe that disasters are distinct from non-disaster type, although still a traumatic event (Halpern & Tramontin, 2007). An example of this would be within the area of childhood traumas, such as child abuse. This split was crucial because mental health practitioners found that the mental health needs and interventions of those affected by disasters differed from those individuals with disorders resulting from non-disaster exposure.

Notwithstanding the notion of external stressors resulting in a pathological response being innovative, the shift in thinking from childhood trauma, coupled with the shift to the biopsychosocial model, was still a difficult adjustment to make among practitioners (Halpern & Tramontin, 2007). It was in the 1990s that “…mental health care formally became a common part of disaster response…” (Halpern & Tramontin, 2007, p. 46). This recognition continues today as the recently released DSM-5 included a standalone section dedicated to stress and trauma-related disorders called Trauma-and Stressor-Related Disorders (American Psychiatric Association, 2013).

As indicated previously, earlier research in the disaster mental health field focused largely on pathological disorders. It offered a one-dimensional view of the disaster milieu, but at the time, not an unwarranted one: poor mental health outcomes after exposure to disaster were becoming a substantial problem in the 20th century. To this extent, disasters and their mental health consequences had become matters of interest for world bodies, such as the WHO, the United Nations, and numerous non-governmental relief and aid organisations (Neria, Galea, & Norris, 2009).

The literature reveals a further shift in thinking developed into studying adaptive responses in survivors through investigations into positive changes after exposure to disasters (Joseph & Linley, 2008; Linley & Joseph, 2004; Tedeschi & Calhoun, 1995).

This shift was fundamental to the field of disaster mental health which recognises individual and communities potential for pathological and adaptive responses to disaster. The field of disaster mental health acknowledged the range of the survivor's experience because it recognises that not all responses are pathological. Therefore, the disaster mental health perspective provided a sound foundation from which to investigate acute stress disorder symptoms (ASD) and posttraumatic growth (PTG) after exposure to disaster; in addition to exploring the experiences of xenophobic violence of survivors.

The transactional model of stress and coping

The disaster literature reveals that the meaning survivors associate with trauma plays a significant role in their vulnerability for developing disorder symptoms and the capacity they possess for developing posttraumatic growth (Halpern & Tramontin, 2007; Ursano et al., 2007). These cognitive appraisals are shaped by beliefs the survivor has about the disaster, particularly the cause of the disaster, and determines how the survivor acts in response to the disaster. In the case of human-caused disaster, its very definition is characterised by human beings as the cause of the event. As mentioned previously, human-caused disasters are more likely to be perceived as preventable and, therefore, survivors are prone to feelings of anger as a result of the disbelief that another human being is capable of harming others. These shattered appraisals are significant to the xenophobic violence of May 2008, as members from the communities were perpetrated xenophobic violence against refugees and migrants who were living in those same communities (Vromans, Schweitzer, Knoetze, & Kagee, 2011). Shattered appraisals are particularly harmful to the survivor's capacity for growth as they heighten perceived threat (Resick & Schnicke, 1993, as cited in Ursano et al., 2007).

Meaning involves considerations subjective to the survivor. These include "…his or her past history, present context, and physiological state" (Ursano et al., 2007, p. 18). A pathological and/or adaptive response may be determined by the meaning an individual attached to the traumatic event. These are not discrete constructs, as survivors may wax and wane on a continuum of vulnerability for disorder or capacity for growth. The responses are greatly influenced by alterations in their cognitive appraisals (Ursano et al., 2007). The change may manifest itself as immediate ASD with prolonged symptoms indicating the presence of posttraumatic stress disorder (PTSD). Or it may manifest as immediate ASD with positive change as posttraumatic growth (PTG). In the literature, ASD is presented as a precursor to PTSD and is rarely presented as a stand-alone disorder. In the transactional model of stress and coping, Lazarus and Folkman (1984)

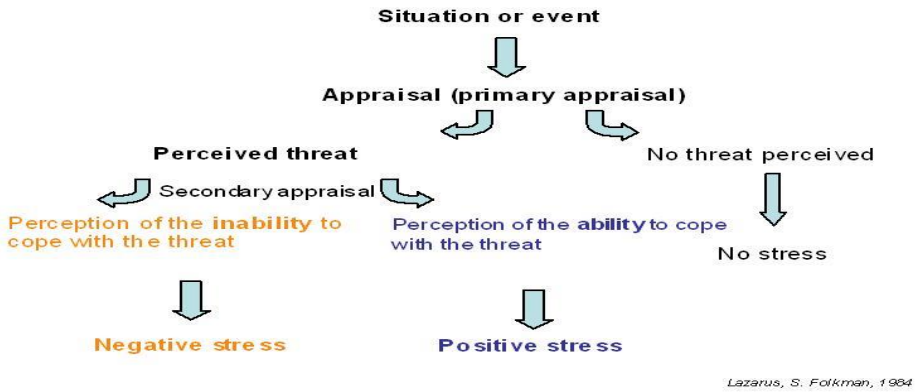
proposed that a person's response is determined by how the interaction is perceived, as either threatening or non-threatening. Subsequently, the person proceeds to evaluate his or her resources for dealing with the perceived threat. When the individual perceives a situation as a threat where the demands outweigh the resources to deal with the situation, stress is likely to occur. The introduction of coping in the stress model illustrated a shift in the thinking of an individual's range of response to a stimulus in the external environment (Lazarus & Folkman, 1984). A person's capacity for coping is fostered in situations where the individual perceives a disaster as threatening, but the resources for coping with the situation outweigh the demands.

Coping appraisals. The perception of the environment as a threat is integral to both stress and coping responses. The relationship between perception and response is non-static and process oriented, ultimately influenced by the person's cognitive processes. Lazarus and Folkman (1984) termed a person's cognitive processes related to their responses as cognitive appraisals, distinguishing between primary and secondary appraisals (p.24). Cognitive appraisals are fundamental to Lazarus and Folkman's transactional model, serving as the catalyst for developing stress or coping responses (see Figure 3). They define cognitive appraisals as:

> … the unique and changing relationship taking place between a person with certain distinctive characteristics (values, commitments, styles of perceiving and thinking) and an environment whose characteristics must be predicted and interpreted (Lazarus & Folkman, 1984, p. 24).

Figure 3

Overview of the transactional model of stress and coping (Lazarus & Folkman, 1984)



(Source: http://www.skybrary.aero/index.php/Stress_and_Stress_Management_(OGHFA_BN)

Primary and secondary appraisals are fused in a complex web of “coping options” and risk assessment during a threatening situation (Lazarus & Folkman, 1984, p. 35). Secondary appraisals are relevant to this study because optimisation of growth is dependent on the transactional role of secondary appraisals and the survivors’ experience of xenophobic violence. Sheikh (2008) suggests that Tedeschi and Calhoun’s posttraumatic growth model is transactional because of the relationship that exists between the cognitive appraisal and their origins (as cited in Lowe et al., 2013).

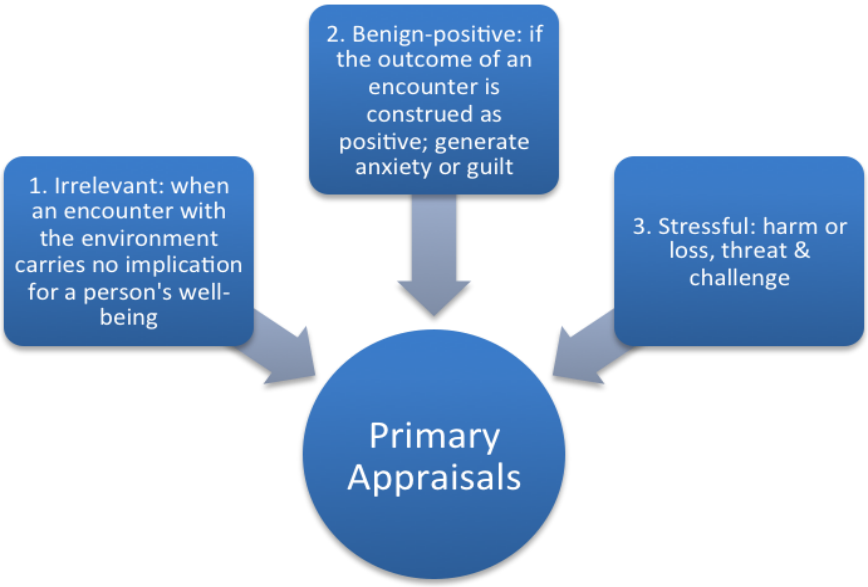
The origins of the cognitive appraisal relate to the fundamental element of posttraumatic growth (PTG) that in order for growth to occur, there must have been exposure to a disaster or traumatic event. Survivors reflections of their beliefs act as a catalyst for growth, “…prompt[ing] both intrusive and deliberate cognitive processing” (Lindstrom, Cann, Calhoun, & Tedeschi, 2013, as cited in Lowe et al., 2013, p. 2). These reflections take place within the secondary appraisals.

During secondary appraisal, a survivor may appraise the xenophobic violence as a perceived threat, and in the aftermath, evaluate the strain of the xenophobic violence as not too demanding, while possessing the coping strategies to optimise growth. It is within secondary appraisals that posttraumatic growth is most likely to occur, given that there must be a change in cognitive appraisals for the better. Thus, posttraumatic growth may be positioned within the transactional model of stress and coping.

Lazarus and Folkman (1984) distinguish between irrelevant, benign-positive and stressful primary appraisals (see Figure 4). Stressful primary appraisals are further characterised by categories of harm/loss, threat and challenge (see Figure 4). The harm or loss category includes existing physical (injury) or psychological (damage to self- or social esteem) harm sustained by the survivor; whereas loss includes the death of a close person such as family member or friend (Lazarus & Folkman, 1984, p. 32). This category of primary appraisal is noteworthy to this study, as it contains an essential feature in the diagnostic criterion of acute stress disorder related to individual exposure to a traumatic event, where the same event has harmed a close person such as a family member or friend. The diagnostic criteria of acute stress disorder are discussed later in this chapter.

Figure 4

Three types of primary appraisal



(Source: adapted from Lazarus & Folkman, 1984, p. 31)

The category of threat and harm or loss are interlinked because although a threat is the anticipation of a future event and harm or loss has already occurred, the threat of the aftermath of a harm or loss is ever present with poor outcomes for future functioning (Lazarus & Folkman, 1984). Smith and Bryant (1999) and Warda and Bryant (1998) discovered that people with acute stress disorder symptoms had persistent negative appraisals about impending harm (as cited in Bryant, 2005). These persistent negative appraisals about impending harm may account for the variations in ASD as a predictor of PTSD (Bryant, 2005, p. 11).

Finally, challenge appraisals include the development and use of coping efforts (Lazarus & Folkman, 1984). Challenge and threat appraisals are distinct from each other. While challenge appraisals view a threatening situation as one where the opportunity "…for gain or growth", a threat appraisal is focused on the "potential harm" that exists in an encounter (Lazarus & Folkman, 1984, p. 33). Another distinguishing characteristic of challenge and threat appraisals are the emotions associated with each one. Challenge appraisals are associated with "pleasurable emotions" (Lazarus & Folkman, 1984, p. 33). These include "…eagerness, excitement, and exhilaration" while threat appraisals are "characterized by negative emotions such as fear, anxiety and anger" (Lazarus & Folkman, 1984, p. 33).

Pathological disorders and growth are likely determined by the outcome of the individual's appraisal of the environment. Lazarus and Folkman (1984) suggest that people who appraise a threatening situation as a challenge are more likely to have better mental health outcomes. They argue that the:

> [c]hallenged person are more likely to have better morale, because to be challenged means feeling positive about demanding encounters, as reflected in the pleasurable emotions accompanying challenge. The quality of functioning is apt to be better in challenge because the person feels more confident, less emotionally overwhelmed, and more capable of drawing on available resources than the person who is inhibited or blocked. … (Lazarus & Folkman, 1984, p. 34).

The secondary appraisals involve the individual's evaluation of the perceived threat, taking into consideration existing or developing coping strategies (Lazarus & Folkman, 1984). In secondary appraisals, the authors describe the distinction between the survivor's assessment of the situation as a threat or challenge, as being integral to secondary appraisals:

> When we are in jeopardy, whether it be a threat or a challenge, something must be done to manage the situation. In that case, a further form of appraisal becomes salient, that of evaluating what might and can be done, which we call secondary appraisal. Secondary appraisal activity is a crucial feature of every stressful encounter because the outcome depends on what, if anything, can be done, as well as on what is at stake (Lazarus & Folkman, 1984, p. 35).

Lau and Morse (2005) describe the evaluation as a process of cognitive processing management, involving "…personal resources (attitudes, beliefs, abilities, self-concept), styles (strategies, defences), and efforts (internal and external actions)" (p.106). Cognitive processing management serves the purpose of establishing a positive change in appraisals, optimising the opportunity for growth (Lau & Morse, 2005). Previous studies have shown that a positive association exists between PTG and posttraumatic stress (Chan & Rhodes, 2013; Solomon & Dekel, 2007) suggesting the trajectory of responses as a continuum-type of relationship, rather than diametrically opposite. A number of studies have confirmed this continuum-type relationship (Ano & Vasconcelles, 2005; Gerber, Boals, & Schuettler, 2011; Harris et al., 2008).

An overview of responses to disaster

A variety of responses to disasters are captured in the disaster literature. These include physiological, physical, and psychological responses.

The disaster experience: Physiological responses. The physiological responses to stress are associated with a fight or flight response, which is initiated in the body when a person is exposed to a threatening situation. In 1935, Walter Canon first introduced the relationship between stress and illness, suggesting both a physiological and psychological response mechanism (Cannon, 1935). According to Canon (1935), the fight or flight response was produced during a situation of perceived threat, maintaining that the level of arousal experienced was heightened during the immediacy of the threat. The body returns to stasis once the threat is eliminated (Cannon, 1935). Following Cannon's work, Hans Selye (1936) affirmed the physiological response to stress by developing the general adaptation syndrome (GAS). Selye defined GAS as a physical reaction of the body to an external threat (Selye, 1984).

There are numerous complex systems within the brain and spinal cord that are activated during exposure to a hazard or force of harm. When a person experiences an intense reaction to a perceived threat, the sensory organs (eyes, ears and nose) assess the environment in which the threat occurs. The tactile or sensory messages obtained from the assessment are sent to the thalamus, which acts as an intermediary between the sensory organs, the cerebral cortex and the limbic system (Scaer, 2014, p. 8). The amygdala, situated in the limbic system, evaluates the sensory responses, determining whether there is a risk involved. At the same time, the cerebral cortex assesses the sensations associated with the intense reaction and prepares itself to "initiate movement", depending on whether the environment is evaluated as a threat to life (Scaer, 2014, p. 8). The sensory system relays the potential threat to the hippocampus.

There are two kinds of processing that takes place in the hippocampus. The first involves the processing of the threat and secondly, the hippocampus serves to balance the threat response, modulating the amygdala through "a system of checks and balances routinely fine-tuning the brain's responses" (Scaer, 2014, p. 8). The autonomic and endocrine systems are triggered into action by the orbitofrontal cortex (OFC) through information sent from the hippocampus (Scaer, 2014). The OFC shapes the person's survival response, depending on whether the situation is perceived as harmful. In a situation where a threat is perceived as harmful, the OFC fosters a defensive action using the body as a barrier between the individual and the threat (van der Kolk, 1994, as cited in

Scaer, 2014, p. 8). The fight, flight system is activated by the autonomic nervous system (ANS) prompting the secretion of epinephrine (adrenaline) from the adrenal medulla (Scaer, 2014). There are several responses in the body which are initiated by the release of adrenaline. The secretion of glucose from the liver prepares organs which work the hardest during flight or fight, the muscles and heart for fight or flight, with the blood flow from less used organs being routed to those organs, such as the heart and muscles, which are mostly used in fight or flight (Scaer, 2014).

During a threatening situation, the endocrine system is responsible for stress management, through the release of hormones such as corticotrophic-releasing hormone (CRH), adrenal corticotrophic hormone (ACTH) and cortisol (Scaer, 2014). The hypothalamus, pituitary and adrenal cortex are involved in the release of these hormones, with initial stimulation by the hypothalamus. Once this happens, there is a domino effect of hormone release, beginning with CRH secreted by the hypothalamus which in turn stimulates the pituitary to release ACTH (Scaer, 2014). Subsequently, the kidneys are stimulated by ACTH and cortisol is released, which prepares the body for a long-term threat through "…increased blood volume, and also mobilizes serum lipids and increases blood sugar for energy use. (Scaer, 2014, p. 10)

Studies have been conclusive in demonstrating the stress hormone cortisol in survivors of natural and human-caused disasters. In a study conducted on survivors directly after an earthquake (a natural disaster), cortisol was detected in blood, urine or saliva, suggestive of "…psychological and physiological stress" (Kotozaki & Kawashima, 2012). Most noteworthy about this study was participants showed cortisol levels that were not only present but also increased within three months after the earthquake. Further to this, it was also revealed that three months after the disaster, survivors' psychological response to the disaster is influenced by the emotional reactions of "stress, fear, fatigue, helplessness, disappointment" (Kotozaki & Kawashima, 2012). A similar study conducted with spouses of survivors of the Oklahoma City bombing (a human-caused disaster), revealed a significant finding that even after 7 years (the bombing took place in 1995), spouses showed "higher afternoon salivary cortisol" (Pfefferbaum, Tucker, North, & Jeon-Slaughter, 2012, p. 6). In a study on survivors of a coal mine disaster (a human-caused disaster), Wang, Zhang, Tan, Yin, Chen, Wang, Zhang, Wang, Guo, Tang and Li (2010), discovered higher cortisol levels in survivors with PTSD, 6 months post-disaster, than those without PTSD.

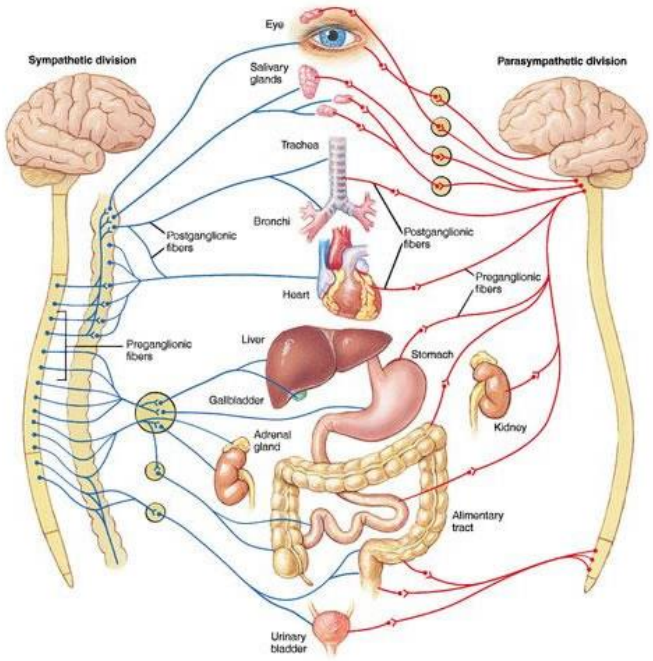
More recently, the notion of a fight, flight, or freeze system (FFFS) has been introduced into the literature. This freeze system has been well established in primates (Bracha, 2004) and is observed in the behaviour of animals in threatening situations:

> …when fleeing and fighting are no longer physically possible, and the prey animal is in a state of helplessness, it will frequently enter the freeze, or immobility state, a totally instinctual and unconscious reflex. This reflexive behaviour is common in most species including insects, reptiles, birds, and mammals. Since most such reflexes have evolved as a means of perpetuating the species, the freeze response clearly is of critical importance for survival (Scaer, 2014, pp. 13–14).

The freeze response is beginning to gain traction in human studies (Hagenaars, Oitzl, & Roelofs, 2014). The FFF system is activated in humans by increased levels of adrenaline and the stimulation of the sympathetic nervous system, and is "…manifested by increases in heart rate, blood pressure, metabolic rate and alertness" (De Bellis, 2010, p. 125). The freeze response in humans should not be compared with the freeze-behaviour or immobility seen in animals (Scaer, 2014). In a threatening situation, people have described the freeze response as a series of feelings associated with shock rather than experiencing the immobility seen in animals (Scaer, 2014). These feelings include: "…detachment, numbing, and even confusion", an altered sense of time appearing to "stand still"; "out of body" sensations and being separated from their body (Scaer, 2014, p. 17). Figure 5 is a diagrammatic illustration of the systems involved in the fight, flight or freeze response.

Figure 5

Sympathetic and parasympathetic systems involved in fight, flight or freeze



(Source: http://www.stressstop.com/stress-tips/articles/fight-flight-or-freeze-response-to-stress.php)

During a freeze response, the high amounts of endorphins released contribute to the weakening of the capacity for memory, both in retrieval and storage capabilities. This is largely due to the mind becoming “numb and dissociated” (Scaer, 2014, p. 15). The dissociated reaction is central to the freeze response, suggesting that the freeze response in people are characterised by the symptoms of “…shock and numbness after a traumatic event and exhibit symptoms of dissociation” (Scaer, 2014, p. 17). Human studies have suggested a link in the freeze response and the onset of pathological responses such as PTSD (Hagenaars, Roelofs, & Stins, 2014). The freeze response may be prolonged because of the duration of PTSD which may last for years, thus a person is experiencing ebbs and flows of the freeze response (Scaer, 2014).

The disaster experience: Physical injuries, disease and property damage. Death and severe physical injuries are common after exposure to human-made and natural disasters (Sever, Vanholder, & Lameire, 2006). Examples of common physical injuries after disaster exposure include “acute renal failure” (Sever et al., 2006), “blunt trauma and burn injuries” (Koffi Isidore et al., 2012), “cuts or abrasions; fractures; motor vehicle crashes; occasional self-inflicted wounds; sprains or strains” (Freedy & Simpson,

2007, p. 841) . Infectious diseases are a compounding risk factor after natural disasters, often further hindering recovery efforts in the affected community (Koffi Isidore et al., 2012).

The physical impact of natural and human-caused disasters is not limited to humans and includes damage to buildings and property. The losses associated with such damage may be catastrophic for the affected population. For example, in war, large military weapons are used which reduce buildings to rubble. Survivors of war lose their homes and possessions. After a tsunami, the influx and strength of the wave damages and washes away buildings belonging to businesses and family homes, as was seen with the Indian Ocean tsunami and the Japan tsunami devastation.

The disaster experience: Psychological responses. The literature is consistent in the trajectory of responses associated with exposure to disaster: normative (and acute) responses after the event, which are not considered pathological (Santucci, 2012); and pathological and adaptive responses (Kaminer & Eagle, 2010). Despite the ability of some individuals to return to normative mental health functioning after exposure to disaster; some individuals will experience pathological disorders and/ or adaptive responses.

Normative responses. Normative responses are distinguished from pathological in individuals after exposure to disaster (Kaminer & Eagle, 2010; López-Marrero & Wisner, 2012).

Normative responses are:

- experienced most strongly during and immediately after the event (Jones & Creedy, 2012);
- transient and dissipate within weeks after first onset (Whalley, Rugg & Brewin, 2012 as cited in Santucci, 2012).

Table 3 shows four categories of reactions and examples of normative responses associated with exposure to disaster. Normative reactions do not hinder daily functioning (Kaminer & Eagle, 2010). Instead, memories of the disaster become incorporated into normal memory, which is accessed periodically, "…[without] the immediacy of the original experience"(Halpern & Tramontin, 2007, p. 8).

Table 3

Common reactions associated with exposure to disaster

Physical reactions	Nausea, shaking and sweating
Emotional reactions	Fear; anxiety; numbness; detachment
Cognitive reactions	Confusion; disorientation; poor attention or concentration; thoughts or images of the traumatic event; hyper-alert
Behavioural reactions	Avoidance; escape behaviours; restlessness; searching for information; difficulty sleeping

(Adapted from Jones & Creedy, 2012, p. 222; Kaminer & Eagle, 2010, p. 29)

Pathological and adaptive responses.

Pathological reactions are the result of prolonged, recurring symptoms individuals experience after exposure to disaster. These reactions are distinguished from normative responses by the severity of the reactions experienced and therefore require intervention (Jones & Creedy, 2012; López-Marrero & Wisner, 2012). The disaster experience may also result in adaptive changes in survivors (Santucci, 2012). In the literature, the positive changes individuals may experience after exposure to disaster is also referred to as adaptive responses including resilience, stress resistance, protracted recovery and posttraumatic growth (Shultz et al., 2007 as cited in Santucci, 2012).

Acute stress disorder (ASD). Acute stress disorder was introduced into the DSM-IV text revised edition (DSM-IV-TR) in 1994 as a cluster of symptoms to describe individuals experiencing extreme distress as a result of exposure to a traumatic event (Santucci, 2012) and as an antecedent to PTSD (American Psychiatric Association, 2000). PTSD is a disorder describing the prolonged and persistent psychological stress symptoms experienced by a survivor of a traumatic event. By including ASD, there was recognition among experts of the significance of the post-trauma role of dissociative symptoms (Cardeña, Lewis-Fernández, Beahr, Pakianathan, & Spiegel, 1996).

PTSD was first included in the Diagnostic and Statistical Manual third edition (DSM-III) in 1980 (American Psychiatric Association, 1980). Persistence and severity of stress symptoms (after the initial diagnostic period of four weeks for acute stress disorder) indicated the likelihood of PTSD being present. The findings on ASD as a precursor to PTSD are mixed: some studies are conclusive, highlighting that 80% of survivors with ASD developed PTSD (Ursano et al., 2007); while others show no ASD symptoms, yet

they present with PTSD (Bryant, 2005). Scholars are divided on the inclusion of ASD in the DSM, but also as a predictor of PTSD. Some believe that ASD is the central disorder, giving rise to other posttraumatic symptoms, while others dispute the salience of using a diagnosis to predict another diagnosis and the concern that normative reactions may be pathologised (Santucci, 2012).

As mentioned earlier in this chapter, ASD is a cluster of symptoms classified under Trauma- and Stressor-Related Disorders in the DSM-5 (American Psychiatric Association, 2013), including diagnostic categories of Criteria A, B, C, D and E (see Figure 6). Each criterion represents a different niche in the ASD symptomology. An initial identification of the level of exposure is required from one (or more) of the four indicators in Criteria A, establishing the exposure to a threat for the accompanying symptoms in Criteria B. Criteria B focuses on the accompanying symptoms associated with exposure (see Figure 6).

Figure 6 also illustrates the 14 symptoms, categorised into five categories required for an ASD diagnosis (American Psychiatric Association, 2013). In order to meet the diagnostic criteria for acute stress disorder, nine or more symptoms (intrusion symptoms, negative mood, dissociative symptoms, avoidance symptoms, arousal symptoms) must be present with the duration from three days to one month (Criteria C). Criteria D and E relate to the severity of symptoms and excluding those affected with identified substance use disorders or other medical conditions (American Psychiatric Association, 2013, p. 281).

Figure 6

Diagnostic criteria for acute stress disorder in the DSM-5

A. Exposure to actual or threatened death, serious injury, or sexual violation in one (or more) of the following ways:
   1. Directly experiencing the traumatic event(s).
   2. Witnessing, in person, the event(s) as it occurred to others.
   3. Learning that the event(s) occurred to a close family member or close friend.
      Note: In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
   4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains, police officers repeatedly exposed to details of child abuse).
      Note: This does not apply to exposure through electronic media, television, movies, or pictures, unless exposure is work related.

B. Presence of nine (or more) of the following symptoms from any of the five categories of intrusion, negative mood, dissociation, avoidance, and arousal, beginning or worsening after the traumatic event(s) occurred:
   Intrusion Symptoms
   1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.
   2. Recurring distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.
   3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.
   4. Intense or prolonged psychological distress or marked physiological reactions in response to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
   Negative Mood
   5. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).
   Dissociative Symptoms
   6. An altered sense of the reality of one's surroundings or oneself (e.g., seeing oneself from another's perspective, being in a daze, time slowing).
   7. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
   Avoidance Symptoms
   8. Efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
   9. Efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
   Arousal Symptoms
   10. Sleep disturbance (e.g., difficulty falling or staying asleep, restless sleep).
   11. Irritable behavior and angry outbursts (with little or no provocation), typically expressed as verbal or physical aggression toward people or objects.
   12. Hypervigilance.
   13. Problems with concentration.
   14. Exaggerated startle response.

C. Duration of the disturbance (symptoms in Criterion B) is 3 days to 1 month after trauma exposure.
   Note: Symptoms typically begin immediately after the trauma, but persistence for at least 3 days and up to a month is needed to meet disorder criteria.

D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

E. The disturbance is not attributable to the physiological effects of a substance (e.g., medication or alcohol) or another medical condition (e.g., mild traumatic brain injury) and is not better explained by brief psychotic disorder.

(Source: American Psychiatric Association, 2013, pp. 280–281)

Other pathological responses. Other common pathological responses that humans may experience after exposure to disaster are depression, PTSD, and somatic disorders.

Posttraumatic Stress Disorder (PTSD) and depression. PTSD may present with other disorders. In the literature, the co-occurring disorders are termed comorbid (Halpern & Tramontin, 2007). A study conducted by Brady, Killeen and Brewerton and Lucerini (2000) suggests that 80% of survivors with PTSD will most likely present with at least one other disorder. PTSD comorbidity may be explained by the overlap of PTSD symptoms with other disorders, particularly symptoms of depression but also by the same underlying cause (Halpern & Tramontin, 2007). Unsurprisingly, the rate of depression and PTSD as concurrent disorders are prevalent in survivors, with some studies showing that 10% to 60% of survivors will present with comorbid PTSD and depression (Halpern & Tramontin, 2007).

Substance use disorders. Substance use appears to increase after exposure to disaster (Santucci, 2012). Studies have differentiated between new onset, abuse or dependence: North and others found that new onset cases account for 0 to 2% of cases (as cited in Santucci, 2012); while in the same study, 8% met the criteria for alcohol dependence in a review of different types of disasters (as cited in Santucci, 2012). When PTSD is present, substance abuse appears to co-occur. Scholars argue that the relationship may be a causal or temporal relationship, where the onset of PTSD precedes substance abuse (Santucci, 2012). These studies used the DSM-IV-TR diagnostics.

Somatic disorders. Although disasters act as a catalyst for somatic symptoms (Mayer, 2007), the etiology of somatic symptoms are unknown. Despite the causal influences being unclear, factors such as "Temperamental factors, comorbid anxiety and depression, fewer years of education, psychological abuse in childhood, and recent stressful life events…" may contribute to the presence of somatic symptoms in individuals (Hales, Yudofsky, & Roberts, 2014).

The psychological sequelae after disasters may contribute to a range of medical conditions and physical complaints affecting survivors (Brende, 2010; Mayer, 2007). Somatic syndromes may be triggered by exposure to traumatic events perceived as traumatic by the survivor. In other instances, fears and excessive worrying associated with exposure to physiological incidences such as "infections, injuries, or exposure to harmful substances" may bring about somatic symptoms (Mayer, 2007, p. 143). These symptoms include persistent pain symptoms such as "headaches, musculoskeletal pain, chest pain, abdominal pain, and pelvic pain" (Mayer, 2007, p. 142).

Leor (1996) and Jacobson (1996) found that in survivors of disaster, heart disease and diabetes were pervasive conditions (as cited in Mayer, 2007). A minority of survivors

of disaster will develop somatic symptoms with the trajectory of these symptoms determined by genetics, previous trauma and the severity of the stress response to the current disaster (Mayer, 2007, p. 143). A wide range of somatic symptoms has been reported after exposure to natural and human-caused disasters (Mayer, 2007), including, "cardiovascular, gastrointestinal, dermatological, opthalmological, and gynaecological symptoms" (Friedman & Schnurr, 1995, cited in Mayer, 2007, p.142). Common complaints include: "Palpitations, tightness in the chest, shortness of breath, and feelings of dread may accompany intrusive memories…Headaches and gastro-intestinal complaints…" (Brende, 2010, p. 748). These symptoms are associated with prolonged activation of the autonomic nervous system (Brende, 2010, p. 748). Refugee studies, in particular, have shown:

> …marked somatic distress and 15-20% report health impairment. Among various groups of refugees (Cambodians, Vietnamese, Russians, Bosnians, and Somalis) hypertension was found in 40 -50% and diabetes (Type II) was found in 13-17%. Although dietary changes, refugee status, and effects of aging play a role, severe trauma contributes to high prevalence of these two diseases (Kinzie, 2010, p. 622).

Posttraumatic growth (PTG)

PTG is indicative of the positive change individuals experience after exposure to traumatic events (Tedeschi & Calhoun, 1995). Those affected by disasters or traumatic events may emerge with not only the ability to cope but also capacity for finding positive meaning in the experience (Hunt, 2010). When Tedeschi and Calhoun published their work in 1995, entitled, 'Trauma and transformation: Growing in the aftermath of suffering', it was the first time that finding positive meaning within trauma became a construct, which they named, posttraumatic growth (Tedeschi & Calhoun, 1995).

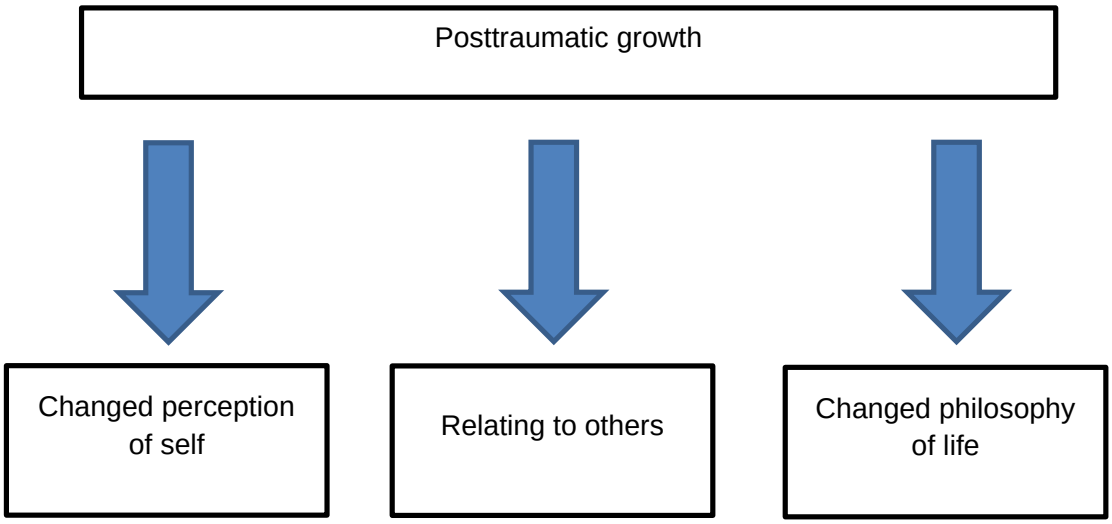
PTG had its beginnings in the work of Viktor Frankl (1905 – 1997), an existential psychoanalyst, Holocaust survivor and founder of Logotherapy (Frankl, Kushner, & Winslade, 2006). His book, "Man's Search for Meaning", published after his release from the Nazi concentration camp in 1945, was a profound account of his suffering in the concentration camp; his observations of other prisoners and the potential for finding meaning in suffering (Frankl et al., 2006). Frankl's theory centred on the individual's choice as to how they will respond to adversity, regardless of the external environment. Prominent scholars in the disaster mental health field have shown the salience of incorporating PTG into the field, suggesting that PTG is an opportunity to turn tragedy into

accomplishment, by changing oneself for the better (Halpern & Tramontin, 2007). Frankl's theory is a framework for finding meaning in adverse experiences and a catalyst for posttraumatic growth (Halpern & Tramontin, 2007).

Tedeschi and Calhoun (1995) brought the concept of meaning into their model of PTG through three categories. The categories of "changed perception of self"; "relating to others"; and "changed philosophy of life" (Tedeschi & Calhoun, 1995). The emphasis of these categories of growth was on the positive change people experienced after encountering adversity. Figure 7 illustrates these categories of growth.

Figure 7

Three categories of PTG



Change in perception of self – strength and new possibilities. Calhoun and Tedeschi (2014) describe survivors who experience a positive change after a traumatic event as "vulnerable yet stronger" (p.5). Before the positive change or growth can occur, there must be an appraisal of the threat in the external environment. (Calhoun & Tedeschi, 2014) Daily stressors are therefore not associated with the development of PTG (Tedeschi & Calhoun, 1996). Subsequently, survivors come to the realisation that they have endured through the disaster and have emerged from it "stronger" than before (Calhoun & Tedeschi, 2014, p. 5). Because of this appreciation of their vulnerability, survivors may be able to identify new opportunities that exist in their life, which they may not have seen before the traumatic event. These new opportunities may manifest itself

through the survivor's discovery of "…developing new interests, new activities, and perhaps embarking on significant new paths in life" (Calhoun & Tedeschi, 2014, p. 5)

Relating to others. Survivors report significant positive changes in the relationships with family members or friends (Calhoun & Tedeschi, 2014). The positive changes within relating to others include: "A greater sense of intimacy, closeness, and freedom to be oneself, disclosing even socially undesirable elements of oneself or one's experience (Calhoun & Tedeschi, 2014, p. 5). Relationships become deeper and more meaningful with survivors reporting a closeness and compassion with others that may not have been present before (Calhoun & Tedeschi, 2014). Calhoun and Tedeschi (2014) report that survivors often talk about feeling better connected to others as a result of their exposure, in addition to feeling greater compassion for others who have experienced loss and tragedy. This was evident in female survivors of sexual assault – participants reported experiencing better and more meaningful relationships with others; in addition to greater empathy for others (Frazier, Conlon, & Glaser, 2001).

Changed philosophy of life – priorities, appreciation and spirituality. This domain reflects the individual's personal philosophy. It is developed through a "…sense of purpose and meaning in life…" (Calhoun & Tedeschi, 2014, p. 6). There are three areas within this domain that contribute to the overall experience of positive change, i.e. priorities, appreciation and spirituality (Calhoun & Tedeschi, 2014). A changed philosophy of life may be experienced through the discovery of what is truly important and paying particular attention to those priority areas (Calhoun & Tedeschi, 2014). Survivors may also experience positive change in their appreciation for life also through the realisation of what is important (Calhoun & Tedeschi, 2014). Experiences that may have been insignificant before are now given prominence, resulting in a change in priorities. Most notably, people may also report positive change where spirituality or religious matters are concerned (Calhoun & Tedeschi, 2014). In similar ways, some people discover clarity on existential matters, producing a positive change in one's personal philosophy of life (Calhoun & Tedeschi, 2014). Although there are three areas in PTG where people may experience growth, most people experience greater positive change in spiritual, religious and existential matters, resulting in a stronger belief system. It is reported that spirituality, religious and existential matters are strongly associated with higher levels of posttraumatic growth (Calhoun & Tedeschi, 2014).

Other adaptive responses. Other examples in the literature of adaptive responses include resilience, stress-related growth, and adversarial growth. These

examples are extensively described in the literature. However, the aim here is to provide a brief overview of some of the adaptive responses found in the literature.

Resilience. Resilience is a response in individuals who at first, display acute transient stress symptoms and then within a short time, revert back to normative functioning (Santucci, 2012). Watson and Neria (2013) describe resilience as people's capacity for adaptability - inherent in all humans - to changing situations.

Stress-related growth. Schaefer and Moos (1992) suggested that one's capacity for stress-related growth is associated with the survivors' available resources: social and personal resources; capacity for developing coping skills. Thus, stress-related growth may be experienced when the resources function in an optimal manner. For example, social resources encompass the relationship networks which a person is a part of. A person may develop meaningful and close ties with others, thus experiencing stress-related growth (Park, Cohen, & Murch, 1996).

Adversarial growth. Linley and Joseph (2004) coined the term "adversarial growth" in their review of the literature on positive changes after trauma (p.11). They define adversarial growth as a collective term to describe the many ways positive changes that people experience after experiencing adversity have been addressed in the literature (Linley & Joseph, 2004, p. 11). Thus, the terms "…posttraumatic growth, stress-related growth, perceived benefits, thriving, blessings, positive by-products, positive adjustment, and positive adaptation" as described in their work are referred to collectively as adversarial growth (Linley & Joseph, 2004, p. 11).

Remembering the past

This study required research participants to recall the autobiographical memory and emotions of a traumatic time in their life that took place six years prior by completing two self-report questionnaires and semi-structured interviews. Rubin, Feldman, and Beckham (2003) describe autobiographical memory as associated with the survivor's subjective sensory and emotional experiences of an event. Experts in the field have highlighted that the emotions following a traumatic event are due to the survivor's subjectivity and how they appraise the event (McNally, 2003).

Memory and emotions associated with memories (also referred to as memory for past emotion) are an integral part of remembering the past, influencing pathological and adaptive responses to disaster. Levine, Lench, and Safer (2009) describe emotions as "…elicited by experiences that matter" (p.1059). It is as a result of feelings associated with

a particular experience that either brings about joy or distress (Levine et al., 2009). Most importantly, when memories are recalled of experiences that evoked such emotion, people not only remember the experience itself but also the feelings associated with the memory (Levine et al., 2009). In the field of disaster mental health concerned with identifying symptoms of a disorder, memory for emotion is of particular significance because survivors are asked to recall emotions associated with their exposure to the disaster. When recalling emotions, survivors may be able to express their subjective experience from exposure to a disaster. This type of recall is necessary when determining their psychological response to their exposure. In the literature, the subjective experience of phenomena is conceptualised as being eidetic (Wertz et al., 2011): the experience is stored as a vivid picture in their memory and the words used to express the experience paint a picture of the phenomena.

Memory for traumatic experience is a contentious and divisive topic in the field, with evidence pointing to both accuracy and inaccuracy of memory over time. McNally (2003) in his review of the literature found that the evidence was conclusive in memories for trauma or disaster: survivors are capable of remembering their trauma well. Survivors may choose not to think about the traumatic events over extended time, but this does not mean that they have developed amnesia or that it influences accuracy (McNally, 2003).

Notwithstanding the significance of the lived experience of the survivor, Levine, Lench and Safer (2009) state that the passing of time influences the accuracy and ability to remember events. Recall bias and the ability of research participants' to accurately remember past events raises questions of validity and accuracy in memory recall. While some studies focussing on recall bias and memory accuracy have shown differences of perspective and research findings on recall bias, others have shown the importance of perceived experiences, particularly aversive events, as significantly enhancing the accuracy of memories, remaining consistent over time (van der Kolk et al., 2007).

Conclusion

The field of disaster mental health is a nascent one with an expanding body of work in the mental health outcomes after a disaster. Mental health outcomes after disasters may include normative, pathological and adaptive responses.

Xenophobic violence in South Africa is a complex phenomenon and may be addressed from the disaster mental health perspective, as a human-caused disaster. Furthermore, as the affected population, refugees and migrants, itself is characterised by

complexity. Thus, there was a need for a comprehensive methodological approach to investigate pathological and adaptive responses in survivors and to explore their subjective experiences through narratives. The integrated approach to pathological and adaptive responses from exposure to disaster expands beyond theoretical explanations of disaster, extending to the methodological considerations for investigating symptoms in survivors in addition to their subjective experiences. This is achieved through the selection of mixed methods research design, which are discussed in Chapter 3.

Chapter 3: Methods

Disasters are complex events, as are the human responses to them, thus requiring a combination of appropriate research methods to deal with such complexity (Bolton, Tol, & Bass, 2009). Combining methods provide the opportunity to build on the strengths of large sample sizes in quantitative methods and the rich narratives of qualitative methods (Bolton et al., 2009). Several scholars in the field of mental health research have recommended a combination of methods when researching mental health outcomes after disasters (Bolton et al., 2009; Weine, Durrani, & Polutnik, 2014).

This chapter focuses on the philosophical and methodological considerations of mixed methods research; the steps and issues involved in deciding on the appropriate mixed methods research design, including ethical reflections when conducting research; the preliminary process involved in both quantitative and qualitative strands; and lastly, the approach to merging and interpretation of the quantitative results and qualitative results.

Philosophical and methodological considerations of mixed methods research

All research is shaped by the researcher's world view and the awareness he or she has of how knowledge is gained in the study (Creswell & Plano Clark, 2011). There are certain assumptions we make about the reality of the "social world" (Frost, 2011, p. 123). These assumptions, referred to as "ontology", may be objective or subjective and are linked to how we think about and examine the social world in our search for truth (Frost, 2011, p. 123). Pragmatism is just one form of ontology. Other ontologies include "positivism, realism,… social constructionism and postmodernism", each with its suppositions of reality and the beliefs associated with that reality (Frost, 2011, p. 123).

The pragmatic rationale for using mixed methods research is a popular one, championed by mixed methods scholars such as Johnson and Onwuegbuzie (2004), Greene (Greene, 2007), Teddlie and Tashakkori (2009), and Creswell and Plano Clark (2011). A mixed methods study contains two strands: a quantitative strand and a qualitative strand (Teddlie & Tashakkori, 2009). Creswell and Plano Clark (2011) note that the research questions (discussed in detail later) emerge from the framework (p.47) and the methods for answering those research questions are guided by the researcher's pragmatic worldview. Biesta's (2010) criticism of pragmatism is its primary concern with the action-consequence relationship, i.e. the person's interaction with the environment. The world in which the relationship plays out is, according to Biesta (2010), as important

as the action-consequence relationship. In this study, the conceptual world where the social phenomenon of xenophobic violence plays out is a complex one where xenophobic violence is a societal construct. This means that xenophobic violence is a concept which is shaped by the world in which it plays out, i.e. the social and political factors contributing to its cause. These contributory factors were briefly highlighted in Chapter Two. It is beyond the scope of this dissertation to expand on this discourse.

Creswell and Plano Clark (2011) recommend that pragmatism forms the philosophical foundation upon which a mixed methods study design is built. This is because the design requires a worldview that takes more than one reality into account when collecting data to answer the research questions. The authors (2011) underscore the importance of the researcher explicitly explaining the assumptions they make about gaining knowledge in their mixed methods study, in order to lay the foundation for a rigorous study (Creswell & Plano Clark, 2011).

The rationale for using mixed methods is that the combination of approaches leads to a better understanding of mental health outcomes after disaster. The quantitative approach explains the presence of ASD and/or PTG, achieved through statistical calculations such as determining the mean or sum of the ASD subscales or posttraumatic growth factors.

On the other hand, the qualitative approach gives insight into the women's experiences of xenophobic violence.The opportunity for respondents to share their reality and their experiences of their reality is known as phenomenology (Wertz et al., 2011). Edmund Husserl is known as the founder of the phenomenological approach (Moutsakas, 1994). Husserl's (1965) phenomenology is referred to as "transcendental phenomenology" (as cited in Moutsakas, 1994). At the core of Husserl's transcendental phenomenology, are the individual's subjective experience and the meaning he or she develops from that experience. It is transcendental because the researcher discards any preconceived ideas or understandings and focuses on the phenomenon as it is shared by the individual (Moutsakas, 1994).

In phenomenology, the researcher seeks the truth of the object through the subjective experiences of the individual. Therefore, the research participant has "…lived the phenomenon under investigation" (Englander, 2012, p. 25) and the phenomenological approach seeks to bring forth the true essence of this lived experience. This is achieved through the gathering of rich descriptions of the phenomenon from research participants. Englander (2012) delineates the person from the phenomenon and in doing so, places

emphasis on the phenomenon or the "…object of investigation" (p.25). The researcher develops an awareness and understanding of the phenomenon through the shared experience of the individual (Englander, 2012).

Therefore, a phenomenological approach is an appropriate means to discover the meaning refugee and migrant women attach to their experiences of xenophobic violence. Phenomenological research follows the lived experiences of individuals to their reality and takes into account the collective, shared experiences of those individuals (Wertz et al., 2011). Phenomenological research suggests that the individual experience is beyond an interpretive approach and the first-person account of phenomena is seen as eidetic (Wertz et al., 2011). As indicated in Chapter 2, the recalling emotions are eidetic and are attached to recalling memories through the expression of words to describe those emotions.

The researcher recognises that there is more than one way of exploring reality, i.e. from a subjective and objective perspective. The pragmatic worldview of the researcher placed value on "both objective and subjective knowledge", allowing the researcher to develop and implement research using quantitative and qualitative approaches (Creswell & Plano Clark, 2011, p. 43). This supported a broader understanding of mental outcomes after disaster exposure. This study combined parallel quantitative and qualitative methodological approaches, with the mixing of methods occurring in the merging of the quantitative and qualitative findings. This study is, therefore, a mixed methods one.

Research Design

A research design provides a map for implementing research. Creswell and Plano Clark (2011) defined research designs as "procedures for collecting, analysing, interpreting, and reporting data in research studies" (p.53). There are different designs for conducting research and the choice is determined by the topic investigated, types of questions asked, the data collection tools used and the data elicited. Creswell and Plano Clark (2011) offer four key considerations when making decisions on which type of mixed methods design to use. The use of the word "strand" denotes the steps involved in quantitative and qualitative components of conducting research (Creswell & Plano Clark, 2011): determining the quantitative and qualitative research questions, collecting the quantitative and qualitative data, analysing the quantitative and qualitative data, and interpreting the quantitative and qualitative results. The researcher's decisions taken around these steps are instrumental when selecting a design option that is appropriately suited to the study.

Each of these considerations informs the decision made by the researcher on the design option to be used in conducting the research. Creswell and Plano Clark (2011) provide six design options within the mixed methods approach (see Table 4).

Table 4

Six mixed methods designs

Mixed methods design	Description
1. Convergent parallel (also referred to as convergent) design	There is a single phase of the study where equal priority is given to both quantitative and qualitative strands. The quantitative and qualitative data are collected and analysed independently, with merging or mixing taking place in the interpretation of the quantitative and qualitative findings (Creswell & Plano Clark, 2011).
2. Explanatory sequential design	There are two phases to the study, where priority is given to the quantitative strand. Data collection and analysis takes place first and thus, "…has the priority for addressing the study's questions" (Creswell & Plano Clark, 2011, p. 71). In the second phase, the qualitative strand is influenced by the results of the quantitative strand. In the interpretation of the results, the "… qualitative results help to explain the initial quantitative results." (Creswell & Plano Clark, 2011, p. 71)
3. Exploratory sequential design	There are two phases of the study, where in the first phase, the qualitative strand has priority with the purpose of exploring a phenomenon. In the second phase, the quantitative strand is implemented to "…test or generalize the initial findings" (Creswell & Plano Clark, 2011, p. 71). During the interpretation of the findings, "…the researcher then interprets how the quantitative results build on the initial qualitative results." (Creswell & Plano Clark, 2011, p. 71)
4. Embedded design	In the initial phase, a traditional quantitative or qualitative approach is followed when conducting research, with data being collected and analysed. Subsequently, either a quantitative or qualitative strand may be added (depending on the initial approach) (Creswell & Plano Clark, 2011, p. 72).
5. Transformative design	A transformative theoretical framework plays an influential role in how and when mixing takes place. These decisions are made within this transformative framework (Creswell & Plano Clark, 2011).
6. Multiphase design	In this design, the multiphase design addresses an overall programme objective, through the combination of sequential and concurrent strands (Creswell & Plano Clark, 2011). This design is predominantly used in programme evaluations that span over a period of time (years).

The convergent parallel design. For this study, the researcher selected the convergent mixed methods design (see Figure 8) because of the concurrent manner in which the quantitative and qualitative research steps unfolded (Creswell & Plano Clark, 2011, p. 69). A concurrent process in mixed methods research has the potential to enhance the strength of the information gathered (Creswell & Plano Clark, 2011). Each strand is distinct and the research steps were conducted independently of each other, except in step four where the quantitative and qualitative results are integrated. Each box

in Figure 8 contains the steps of the current research along with the procedure followed. The arrows depict the direction of flow from one step to the next and the word “and” depicts the concurrent nature of the design. The qualitative and quantitative strands are mixed during the interpretation phase (step four) of the study. Creswell and Plano Clark (2011) maintain that although there is a level of interaction at the interpretation phase, the preceding steps are independent. The following section outlines the researcher’s considerations in selecting the convergent design.

The level of interaction between the strands. Greene (Greene, 2007) noted two general options for a relationship: “independent and interactive” (as cited in Creswell & Plano Clark, 2011, p. 64), indicating the extent of the relationship between the quantitative and qualitative strands. In an independent relationship, the quantitative data collection and qualitative data collection; analysing the quantitative data and analysing the qualitative data is conducted separately of each other. It is only in the interpretation of the analysed quantitative and qualitative results where mixing occurs.

In an interactive relationship, mixing of quantitative strands and qualitative strands in the research process takes place within the data collection or data analysis steps, before interpretation of the quantitative and qualitative results. In the current study, the quantitative measuring instruments were not dependent on the qualitative results, neither the qualitative interview schedule on the quantitative results, thus an independent relationship existed between the quantitative strand and qualitative strands. Thus, an independent level of interaction existed between the quantitative and qualitative strands (Figure 8). The research questions were also kept independent for both strands (Creswell & Plano Clark, 2011).

The relative priority of the strands. The priority in addressing the research question may be determined by the “…importance or weighting…” given to quantitative and/or qualitative strand (Creswell & Plano Clark, 2011, p. 65). In research designs where the quantitative research question(s) holds priority, the priority of study is weighted to the quantitative strand. On the other hand, in studies where the qualitative research questions hold priority, the qualitative strand takes priority in answering those qualitative questions. In the current study, the quantitative and qualitative strands are of equal importance in answering the research questions, and hence had equal priority (Creswell & Plano Clark, 2011).

The timing of the strands. Timing within mixed methods research is defined as “…the temporal relationship between the quantitative and qualitative strands within a

study" (Creswell & Plano Clark, 2011, p. 65). The timing of the strands may be concurrent, sequential or a multiphase combination (Creswell & Plano Clark, 2011, p. 66).

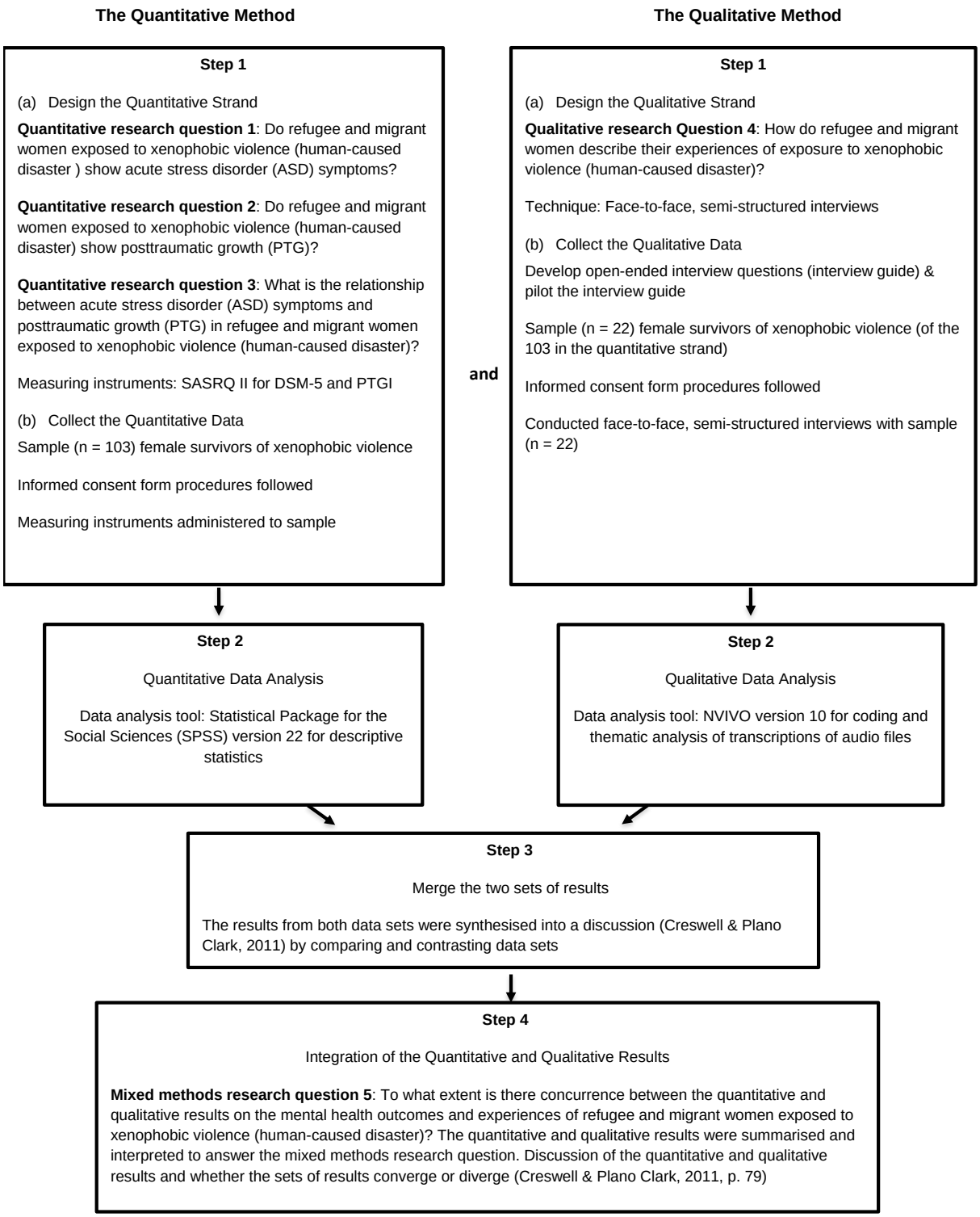
In concurrent timing, the quantitative strand and the qualitative strand are conducted in a single phase (Creswell & Plano Clark, 2011, p. 66). Sequential timing requires that the data collection and analysis steps of a strand are implemented after the initial strand is conducted. For example, qualitative data collection and qualitative data analysis may be conducted before quantitative data collection and quantitative data analysis or vice versa.

Lastly, multiphase combinations involve the implementation of a combination of concurrent and/ or sequential timing (Creswell & Plano Clark, 2011). Multiphase combinations may take place in research projects where there are multiple studies, conducted as concurrent and/ or sequential timing, which contribute to the large project (National Institutes of Health, n.d.). In the current study, there is the concurrent timing of the strands because both quantitative and qualitative strands are distinct and independent of each other (as discussed previously).

The procedures for mixing the strands. A mixed methods design requires that merging or integration occurs in one or more steps of the quantitative and qualitative strands. Creswell and Plano Clark (2011) define mixing as "… the explicit interrelating of the study's quantitative and qualitative strands…" (p.66). Therefore the procedure for mixing may take place within a variety of possibilities, either through merging the quantitative and qualitative data; between analysis of one strand to the data collection of the other strand; "embedding of one form of data within a larger design or procedure"; "using a framework (theoretical or program) to bind together the data sets…it is the process by which the researcher implements the independent or interactive relationship of a mixed methods study" (Creswell & Plano Clark, 2011, p. 66). In the current study, mixing took place in the interpretation of the quantitative and qualitative results because there was independence in the data collection and analyses (Figure 8).

Figure 8

The convergent design applied in the current study (Adapted from Creswell and Plano Clark, 2011, p.79)



Preliminary steps in the research process

In this convergent mixed methods design, there were common steps in the quantitative and qualitative strands of the study. These steps are presented before the presentation of the independent steps of the quantitative and qualitative strands.

Preparatory activities with organisations. The researcher worked with two organisations, namely the Africa Diaspora Forum (ADF) and the Jesuit Refugee Services (JRS). The ADF is a federation of African migrants associations which provides assistance to refugee and migrants and creating awareness campaigns on xenophobia. JRS supports refugees by providing social assistance to them. The organisations expressed interest in the research findings and requested that the researcher makes available her dissertation to them.

Both organisations assisted the researcher with participant recruitment. Relationship-building with the organisations was as important as the relationships with respondents. The researcher attempted to build a relationship of trust with the organisations and conducted herself in a professional manner at all times. For example, when invited to a humanitarian event, the researcher volunteered to assist with preparations, ensuring that she was present on the day and on time as agreed. The researcher ensured that all material (for example, pen, the correct amount of questionnaires printed, informed consent forms) for conducting research was brought along and did not use the organisations' resources.

Study respondents (or participants) and study setting. The study respondents (or participants) refer to the refugee and migrant women who took part in the research. The refugee and migrant women were recruited from ADF and JRS in Johannesburg, Gauteng, South Africa. On days when questionnaire administration and interviews were scheduled to take place, the researcher arrived 30 minutes before the first appointment was due to begin. Both organisations assigned a private room to the researcher for the purpose of questionnaire completion and interviews.

Criteria for inclusion. Participants were required to meet the following criteria for inclusion in the study:

1. Refugee or migrant female
2. 18 years of age or older (age of majority in South Africa)
3. Ability to read, write and speak English
4. Living in South Africa in May 2008

Recruitment procedures. The researcher requested permission from the organisations to recruit participants who access the organisations for assistance. Both organisations approached refugee and migrant women and invited them to meet with the researcher on specific days if they were interested in participating in the research. On the day of the meetings, the researcher was introduced to the women present by a representative of the ADF or JRS. Once the introduction was done, the researcher expanded on the initial introduction done by the representative, explaining that she is a student at the University of South Africa (UNISA), and then explained the study to the group of refugee and migrant women present. Each woman was provided with informed consent forms (ICFs) and the researcher explained its contents. The women were encouraged to ask questions.

In some instances, one woman would attend the introductory session. The researcher followed the same process as described with the groups: the representative would introduce the researcher, the researcher would expand on the introduction to the refugee/migrant woman, provide her with an informed consent form and explain its content.

Informed consent form (ICF). These ICFs were adapted from those made available by the WHO. The ICF contains information regarding the purpose of the research, procedure, participant selection, voluntary participation, duration, risks, benefits, reimbursements, confidentiality, sharing the results and right to refuse or withdraw (World Health Organization, n.d.).

The section on the purpose of research introduces the research to the potential participants, beginning with an introductory sentence on the xenophobic violence in May 2008 and the death and damage it caused in the community. Subsequently, a distinction is made between physical and mental harm which may be caused by xenophobic violence and that the aim of the research is to learn about the women who experienced the event.

The procedures for participating in the research are discussed, namely, that upon agreeing to participate, participants would be required to complete three questionnaires in the questionnaire pack and take part in an interview with the researcher. The time frame for the questionnaire completion and interview were noted in the form as 15 minutes and 45 minutes respectively. The potential participants' attention is once again brought to the study being about xenophobic violence.

In the procedures section, potential participants were also informed that they do not write their names on the questionnaires. Similarly, potential participants were informed

that the interview would take place in a private room and that the conversation would be kept confidential. Potential participants were also made aware that staff and clients are the centres would know that they are participating in the research by going into the private room with the researcher. Staff and clients would not know what was said to me.

Participants were also informed that the researcher would write down notes and audio record the interviews. Lastly, participants were informed that only the researcher and the university supervisor would have access to the recordings.

Participants were informed that taking part in the research is voluntary and that it was their choice to complete the questionnaire or not. Similarly, participants were also informed that it remained their decision to take part in the interview with the researcher. They were also informed that whether they chose to participate or not in the research, the services they receive at the organisations would remain the same.

The risks of the research were also explained in the form. Participants were informed that in the event of them feeling emotional or uncomfortable because of painful memories of the xenophobic violence, they could stop completing the questionnaire and/or interview at any point during the procedure. Participants who required counselling services would be referred by the researcher to the organisations. As these counselling services are linked to the organisations' activities, there would be no cost for the participants or the researcher.

The participants were informed that there were no direct benefits to participating in the research. Participants were also informed that there would be no benefits, such as money or food, to fill in the questionnaires and/or take part in the interview with the researcher. An example of the ICF is included in Appendix 1.

Certificate of consent. The certificate of consent is a form signed by the research respondent and the researcher. By signing this form, the research respondent confirms that they have read the information given to them or that it has been read to them and they understand they are participating in the study voluntarily. The researcher acquiring the consent is also required to provide her signature, confirming that the respondent was allowed to ask questions; that those questions were answered; and that the respondent has agreed to participate in the research voluntarily (World Health Organization, n.d.). Please see Appendix 2 for the certificate of consent.

All 103 participants agreed to take part in the quantitative strand of the study, while the 22 respondents (of the 103) also agreed to participate voluntarily in the

qualitative strand. All participants signed the certificate of consent, giving consent to participation in the quantitative and qualitative study. The ethical procedures are described in the section below and were followed in the pilot and main study.

Ethical considerations in research

Ethical clearance to conduct the study was granted by the UNISA Ethics Review Board, through the Department of Psychology. In its 2007 policy on research ethics, UNISA provides general guidelines to all staff and students on conducting ethical research, to ensure the protection of research subjects. The current study only involved human participants and, therefore, the ensuing ethics discussion is on ethical research with human participants. UNISA encourages staff and students to undertake research built on the four fundamental principles at the heart of ethical research: autonomy, beneficence, non-maleficence and justice (UNISA policy on research ethics, 2007). Each ethical principle encompasses a discussion on both the quantitative strand and qualitative strand.

Autonomy. Any research conducted with human participants must be done with respect for the participants and their rights. Human participants may not be subjected to research that violates their rights to dignity. In the current study, the researcher ensured that at the onset of recruitment, each participant was informed about the research project and what participation in the quantitive and qualitative study entailed. This was achieved through the informed consent form (ICF). The researcher provided the research respondents with information about the study that was clear, unambiguous and in simple, understandable terms. The researcher encouraged respondents to ask questions about the study and their role in it, as well as what the researcher's role would be in conducting the study. Each research respondent signed the certificate of consent and submitted it to the researcher. All certificates of consent are kept in a locked cupboard.

The researcher informed participants of their rights and that they could terminate their participation in the study at any point during the interview or the completion of the questionnaire. Pistrang and Barker (2012) advises researchers to act responsibly when conducting research on sensitive topics, specifically during interviews. They further state that when interviewees are required to recall traumatic events, they may become emotional during their disclosure or the interviewee may disclose information that would require the researcher to act accordingly. This may be the same for quantitative research, particularly in questionnaire completion when the questionnaire items require the participant to recall traumatic events. For the quantitative strand, participants were

informed that they did not have to answer items on the questionnaire that made them feel uncomfortable and that they could stop at any point.

In the qualitative strand of the current study, two respondents became emotional during the interviews. The researcher asked the respondents if they would like to terminate the interview, but they declined and opted to continue with the interview. None of the respondents became emotional during the questionnaire completion.

Beneficence. The research project did not have any direct benefits to the participants and all participants were informed of this. However, the research had indirect benefits as studying the mental health outcomes of refugee and migrant women after exposure to human-caused disaster (xenophobic violence) provided insight and knowledge to mental health experts and may influence the design of interventions programmes provided to refugee and migrant women during such disasters. The researcher will present the final dissertation to the organisations where the respondents were recruited from.

Non-maleficence. In both strands, the researcher endeavoured at all times to protect the confidentiality of the respondents who participated in the study. In the qualitative strand, the researcher maintained the privacy of the participants by ensuring that the data collected (audio files) were kept secure. The researcher's mobile smartphone with an embedded audio recording application was used to audio record the interviews. The mobile smartphone is security protected by a password and the phone is automatically locked. After each interview, the audio files were uploaded to a Dropbox folder as a back-up of the files. During the interviews, ensuring respondents' privacy was accomplished through the use of private rooms at both organisations, where only the participant and the researcher were present during an interview session. The researcher did not reference the name of the participant being interviewed during the audio recorded interviews.

For the quantitative strand, respondents were not required to indicate their names or any other identifiers (for example, refugee ID number) on questionnaires. Thus, the questionnaires were completed anonymously. Privacy was ensured during questionnaire completion through the use of private rooms at both organisations, where only the respondents and researcher were present. In some instances, questionnaire completion was conducted in a group. This meant that the participants were able to see who was participating in the research and in this instance confidentiality was not guaranteed. Participants were informed that if this made them uncomfortable, they could refuse to

complete the questionnaire. In other instances, questionnaire completion was done on a one-on-one basis.

Justice. The risk of participation was that participants were required to recall the xenophobic violence and the memories of the experience could evoke various emotional responses. The researcher indicated to participants that the research focused on xenophobic violence at the beginning of the research procedure and that both the quantitative and qualitative strands of the study would require participants to recall their experiences during the xenophobic violence. The participants were aware of the availability of counselling at no cost to the participant.

The Quantitative Strand

Quantitative research is defined in the American Psychological Association dictionary as:

> A method of research that relies on measuring variables using a numerical system, analyzing these measurements using any of a variety of statistical models, and reporting relationships and associations among the studied variables…the goal of gathering this quantitative data is to understand, describe, and predict the nature of a phenomenon, particularly through the development of models and theories (APA Dictionary of Statistics and Research Methods, 2014, pp. 284–285).

The quantitative strand of the current study involved the designing the quantitative study and collection the quantitative data. These steps preceded the analysis, merging of both strands' results and integration of the quantitative and qualitative results.

Designing the quantitative strand. In the current study, the quantitative method began with developing the research questions. In Figure 8, this is depicted as step 1(a). The research questions were developed from the literature review (in Chapter 2) of mental health outcomes after exposure to disasters. A hallmark of quantitative research is that it involves the systematic measurement of variables, defined as "…a characteristic of an entity, person, or object that can take on different categories, levels, or values and that can be quantified (measured)" (APA Dictionary of Statistics and Research Methods, 2014, p. 405).

The quantitative research questions. The quantitative research questions in the current study contained two dependent variables, i.e. acute stress disorder symptoms and post-traumatic growth. Creswell and Plano Clark (2011) define dependent variables as variables "… that depend on the independent variables; they are the outcomes or results of the influence of the independent variables" (Creswell, 2013, p. 52). Independent variables are defined as variables "… that (probably) cause, influence, or affect outcomes" (Creswell, 2013, p. 52), which in this study was the exposure to xenophobic violence.

The quantitative strand of the current study aimed to answer three research questions shown in Table 5.

Table 5

Research questions and hypotheses

Research question	Null hypothesis (H_0)	Alternative hypothesis (H_1)
Do refugee and migrant women exposed to human-caused disaster (xenophobic violence) show acute stress disorder (ASD) symptoms?	Refugee women exposed to xenophobic violence do not show acute stress disorder symptoms	$H_{1:}$ Refugee women exposed to xenophobic violence show acute stress disorder symptoms
	Migrant women exposed to xenophobic violence do not show acute stress disorder symptoms	$H_{2:}$ Migrant women exposed to xenophobic violence show acute stress disorder symptoms
Do refugee and migrant women exposed to human-caused disaster (xenophobic violence) show post-traumatic growth (PTG)?	Refugee women exposed to xenophobic violence do not show posttraumatic growth (PTG)	$H_{3:}$ Refugee women exposed to xenophobic violence show posttraumatic growth (PTG)
	Migrant women exposed to xenophobic violence do not show posttraumatic growth (PTG)	H_4: Migrant women exposed to xenophobic violence show posttraumatic growth (PTG)
Is there a relationship between acute stress disorder (ASD) symptoms and posttraumatic growth (PTG) in refugee and migrant women exposed to human-caused disaster?	There is no relationship between acute stress disorder (ASD) symptoms and posttraumatic growth (PTG) in refugee and migrant women	H_5: There is a relationship between acute stress disorder (ASD) symptoms and posttraumatic growth (PTG) in refugee and migrant women

The measuring instruments

The measures used in the quantitative strand to address the research questions were the Stanford Acute Stress Reaction Questionnaire II (SASRQ for DSM-5 or SASRQ II) and the Post-traumatic Growth Inventory (PTGI) (Cardeña et al., 2014; Tedeschi & Calhoun, 1996). A demographic questionnaire was included at the beginning of the questionnaire pack.

Demographic questionnaire. A demographic questionnaire was included at the beginning of the questionnaire pack, followed by the SASRQ II and then the PTGI. The demographic collected information on age, ethnicity, marital status, religion and the highest level of education. The aim of this demographic information was to provide categories in which similarities or differences were compared (Gillham, 2005). All

questionnaires in the questionnaire pack were marked with numerical codes. As previously indicated, participants did not write down their names on the questionnaires.

Overview of the Stanford Acute Stress Reaction Questionnaire II (SASRQ for DSM-5). The first version of the Stanford Acute Stress Reaction Questionnaire (SASRQ) was developed in the United States of America by authors Cardeña, Koopman, Classen, Waelde, and Speigel 2000 to assess acute stress disorder (ASD) symptoms in survivors of traumatic events (Cardeña, Koopman, Classen, Waelde, & Spiegel, 2000). The SASRQ followed a 30 symptom checklist format on a Likert-type scale, its items aligned with the DSM-IV-TR (Cardeña, Koopman, Classen, Waelde, & Spiegel, 2000).

With the release of the DSM-5 in May 2013, the SASRQ was revised to align it with the DSM-5 (Cardeña et al., 2014). The SASRQ II (SASRQ for DSM-5) remains a 30 item, self-report, Likert scale measuring instrument designed to measure acute stress disorder symptoms (see Appendix 3). The revision reflects the changes made to the acute stress disorder taxonomy in the DSM-5 (E Cardeña, personal communication, February 4, 2014).

In order to complete the SASRQ II, participants are required to select a response to the SASRQ II items on a Likert scale ranging from 0 to 5. A score of zero (0) describes that the item was *not experienced*; 1 describes that the item was *very rarely experienced*, 2 describes *rarely experienced*, 3 describes *sometimes experienced*, 4 describes *often experienced* and 5 describes *very often experienced*. The SASRQ II scoring sheet indicates that a symptom is present if a respondent selects a response of 3 (sometimes experienced), 4 (often experienced) or 5 (very often experienced) on the scale.

In addition to the Likert scale questions, the SASRQ II requires the respondents to complete two open-ended questions. These included:

a. Briefly describe in the space below the event that was most disturbing to you of the xenophobic violence/attacks that occurred in May 2008. Think about the first 30 days after the attacks occurred and how you felt during that time.
b. Please describe below any other psychological or physical reactions you had related to the stressful event that have not been already mentioned in this questionnaire.

Permission to use the SASRQ II for the DSM-5 in the current study was granted by the corresponding author, Professor Etzel Cardeña (E Cardeña, personal communication, February 4, 2014).

Pilot testing the SASRQ II (SASRQ for DSM-5). At the time of the current study, the SASRQ II had not been used in any published work, thus the reliability and validity of the revised version was unknown. While the previous version of the SASRQ, had been used with diverse samples (Kweon et al., 2013; Maldonado et al., 2002) and in both natural and human-caused disasters (Benight & Harper, 2002), the revised version had not. Thus, pilot testing was necessary to determine the reliability of the SASRQ for DSM-5. Pilot testing also allowed the researcher to identify opportunities for misunderstanding or confusion in completing the SASRQ II by research respondents.

Ten participants took part in the pilot study. The criteria for inclusion remained the same for the pilot study as for the main study. Participants were recruited from the same organisations where the larger sample for the main study came from. The project began with the researcher making contact with two organisations in the Johannesburg CBD. Both organisations agreed to the researcher's request to assist with recruiting participants for the pilot study. One participant came from the ADF and nine from JRS.

Reliability of the SASRQ II (SASRQ for DSM-5). In the pilot study, the reliability of the SASRQ II was established by the test-retest method. Respondents were asked to complete the questionnaires again two weeks later or as soon thereafter. Participation remained voluntary throughout the process of administering the SASRQ II and participants were reminded that they could withdraw or refuse to participate in completing the questionnaire. All ten participants were able to complete the questionnaire on both occasions. The data was tested for reliability using IBM Statistical Package for the Social Sciences (SPSS) version 22. In the pilot study, the SARSQ II for DSM-5 showed good test-retest reliability ($r = .68$) and $\alpha = .88$.

The Posttraumatic Growth Inventory (PTGI). Tedeschi and Calhoun (1996) expanded upon their theory of post-traumatic growth (introduced in Chapter 2) by operationalising it through the development of an instrument to measure post-traumatic growth in survivors of traumatic events: the Posttraumatic Growth Inventory (PTGI) (see Appendix 4).

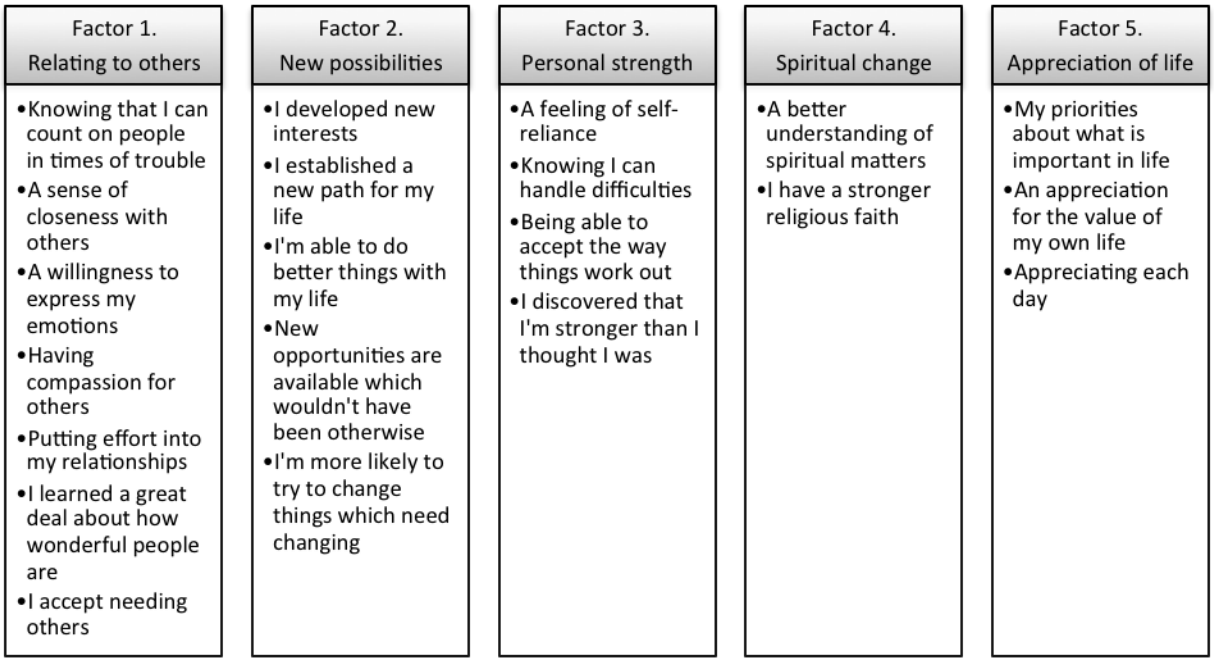
The PTGI is a 21 item scale, self-report questionnaire, measuring the positive changes experienced after a traumatic event (Tedeschi & Calhoun, 1996). It assesses four broad categories of survivors' perceptions of: personal benefit, changes in self, changed sense of relationships, and changed philosophy of life within the context of the trauma experience. It consists of five subscales (Figure 9), i.e. new possibilities, relating

to others, personal strength, spiritual change and appreciation of life (Tedeschi & Calhoun, 1996).

The PTGI has been used across populations and has shown good validity and reliability (Calhoun, Cann, & Tedeschi, 2010; Hunt, 2010). The evaluation of the PTGI shows good internal consistency, with a measure of α = .90; test-retest reliability of r = .71 (Tedeschi & Calhoun, 1996). The PTGI has been used in recent studies investigating diverse topics and across samples: Israeli ex-prisoners of war (Dekel, Ein-Dor, & Solomon, 2012); urban teens (Ickovics et al., 2006); cancer survivors (Park, Chmielewski, & Blank, 2010); ambulance personnel (Kirby, Shakespeare-Finch, & Palk, 2011); victims of violence (Kunst, 2010) and refugee populations (Gregory & Prana, 2013; Teodorescu et al., 2012). Permission was requested and granted from the corresponding author, Professor Tedeschi, for the use of the PTGI in the current study (R Tedeschi, personal communication, July 14, 2011).

Figure 9

Five factors of the posttraumatic growth inventory



(Source: Tedeschi & Calhoun, 1996, p 462)

The items are rated on a 6 point Likert scale: 0 (*I did not experience this change as a result of my crisis*), 1 (*I experienced this change to a very small degree as a result of my crisis*), 2(*I experienced this change to a small degree as a result of my crisis*), 3 (*I experienced this change to a moderate degree as a result of my crisis*), 4 (*I experienced this change to a great degree as a result of my crisis*), and 5 (*I experienced this change to a very great degree as a result of my crisis*). The sum of the responses indicates low or

greater levels of growth (lowest score: 0 and highest score: 105). The subscale scores are calculated by adding the scores for the subscales: Relating to Others (7 items), New Possibilities (5 items), Personal Strength (4 items), Spiritual Change (2 items), and Appreciation of Life (3 items).

Collecting the quantitative data

Collection of the quantitative data (in Figure 8, this is depicted as Step 1 b) involved the following activities: sampling the research respondents; calculating sample size; and administering the measuring instruments.

Sampling the research respondents. A sampling scheme involves the process of selecting the respondents who will participate in the study and the sample size involves the calculation of the number of participants who will take part in the study (Collins, 2010). These two factors were crucial contributors to the study and influenced the statistical outputs of the quantitative strand.

Non-probability sampling through purposive and snowballing sampling techniques was used in the current study. The rationale for using purposive sampling was twofold. Firstly, it is an appropriate choice when the population sampled may be difficult to find (Bernard, 2013) and secondly, when the selected sample is relevant to the research questions asked. Sampling refugee and migrant women in the study was informed by the literature review and involved a priori purposive sampling (Bryman, 2012). In “a priori” purposive sampling, research respondents are selected to match the criteria for inclusion to address the research questions (Bryman, 2012, p. 418). Snowball sampling is appropriate because of the nature of xenophobic violence and the refugee and migrant context. Snowball sampling is described as approaching an individual who has indicated that he/she will take part in the study and asking them to identify someone similar who would also consider participating in the research (Bernard, 2013). The assumption was that refugee women would most likely be more responsive to participating in the research if they were invited by someone familiar.

Sample size. The sample size in the current study was estimated from a proportion of the population, rather than the entire population. The rationale for the proportion estimation was due to the fact that figures of refugees and migrants entire population in South Africa, particularly in 2008 when the xenophobic violence took place are inaccurate and inconsistent.

Peacock and Peacock (2011) recommend that sample proportions of the entire population are logical when conducting research, adding that "[s]ample estimates will therefore be an imperfect representation of the entire population since they are based on only a subset of the population" (p.56). The current study is a descriptive one. Krämer, Khan, Kraas (2011) state that in descriptive studies, the sample size estimation can be calculated "…on the concepts of confidence intervals" (p.63). The sample size for proportions was calculated using the following formula (Rumsey, 2011):

$$z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}},$$

To calculate n:

$$n = \sqrt{\frac{\rho(1-\rho)z^2}{ME^2}}$$

With a confidence level at the standard convention of 90%, the margin of error was calculated as 8.20% or 0.082, allowing for a plus or minus error of 8.2% (Israel, 2009). An 8.2% margin of error meant that a sample size of 101 was statistically significant. The *p* value set at 0.1. Other similar studies have used a confidence interval of 90% (Kamperman, Komproe, & de Jong, 2007; Keys, Kaiser, Foster, Burgos Minaya, & Kohrt, 2015). As previously indicated, accurate figures for 2008 were not available at the time of the study and were roughly estimated from the 2012 figure of 1.6 million refugees and migrants in South Africa (Statistics South Africa, 2012). According to the data from the UNHCR, annual growth figures for refugees and migrants are sporadic, decreasing or increasing year-on-year. An incremental increase (e.g. of 20%) could therefore not be applied here.

Solution: n = 100

There were many factors that influenced sampling. Firstly, consideration was given to accessing potential participants. The threat of xenophobic is a daily concern for refugees and migrants living in Johannesburg, South Africa. It is a sensitive topic with many refugees and migrants living in fear of the violence re-occurring by being identified and targeted with violence. Refugee and migrant populations are mobile and move around from city to city, with some returning to their home countries. The researcher was

concerned with attrition rates in the study (because of mobility) and inadequate interest in participation due to the sensitive nature of the study topic. Therefore, the number of participants was increased to 120.

Secondly, research budget constraints were also an important consideration in the sample size, including printing costs, field work travel, telephone costs and time. As previously indicated, the sample calculation indicated that a minimum of 101 research respondents had to participate in the study in order to yield statistically significant findings. At the end of field work, 103 participants (out of 120 potential participants approached) had taken part in the quantitative strand of the study, with 22 of those participants also taking part in the qualitative strand.

All research respondents were invited to complete the questionnaires and to participate in the interviews for the qualitative strand of the study. Research respondents completed the demographic questionnaire first, followed by the SASRQ II, the PTGI and then participated in the interview. In total, 103 research respondents in the quantitative study completed the demographic, SASRQ II and PTGI questionnaires.

Administering the measuring instruments. Due to the large number of research respondents, the questionnaires were administered over a period of six months. The researcher set up appointments with participating organisations to administer the questionnaires. On the day of the appointments, the researcher explained her role as a student to the participants, including the focus and purpose of the study, the ICF, and the study requirements of completing the questionnaires. The researcher informed participants that they could withdraw from participating in the research at any point and that withdrawal would have no impact on the services they received at the centres, or for themselves. Research respondents were encouraged to ask questions and to complete the questionnaires.

Quantitative Data Analysis

Quantitative data analysis is depicted as step 2 in Figure 8. The data was analysed using IBM SPSS version 22. Both measuring instruments produced ordinal data. There were no inverted items on the questionnaire. The information (data) contained in the completed questionnaires was prepared for analysis (Creswell & Plano Clark, 2011) by entering the data into a Microsoft Excel spreadsheet. Each column in the spreadsheet represented the items in the questionnaires, for e.g., age or ethnicity. Each row represented the completed questionnaire of a participant, e.g. ID006.

Descriptive data. Descriptive data is presented as a summary of the statistics produced consisting of measure of central tendency (mean, median, and mode), variability of the distribution “range, standard deviation, and variance” (McBride, 2012, p. 147) and frequency distributions to illustrate the number of times each score occurs. The data is presented in Chapter 4.

Inferential statistics. A scatterplot was used to illustrate the SASRQ II scores and PTGI scores for each research respondent. A score of 3 and above on the SASRQ demonstrates the presence of acute stress disorder symptoms; a score of 2 and below demonstrates low levels or absence of acute stress disorder symptoms (Cardeña et al., 2000). A score of 85 and above on the PTGI demonstrates a high score/greater levels posttraumatic growth; a low score of 30 or below demonstrates low score/ low levels of posttraumatic growth (Grubaugh & Resick, 2007). An independent sample *t*-test was used to assess mean differences between the ethnicity groupings and acute stress disorder symptom subscales (test variable). Multiple regression analysis was used to predict PTG from SASRQ subscales (intrusion symptoms, negative mood symptoms, dissociative symptoms, avoidance symptoms, arousal symptoms, and impairment symptoms).

SASRQ for DSM-5 open-ended responses

Thematic analysis was used to identify common themes in the open-ended, written responses. The researcher used computer-aided coding instead of hand coding. Thus, all the questionnaires were uploaded into NVIVO. The two open- ended questions served as the broader, thematic categories for the qualitative responses. Through an iterative process, the researcher read through each of the qualitative responses to the open-ended questions.

The researcher identified codes which were then created and stored in NVIVO. This allowed for the emerging of themes in those broader categories. The relevant narrative text was highlighted in NVIVO and assigned to its respective NVIVO code. There were five main thematic areas identified from the written responses to the SASRQ for DSM-5 open-ended questions:

Theme 1: Refugee and migrant women exposed to xenophobic violence experienced physical outcomes**.**

Sub-theme 1.1: Physical harm to self and others (family and/or friends).

Sub-theme 1.2: Loss of property/ personal belongings.

Sub-theme 1.3: Death of family members

Theme 2: Refugee and migrant women experienced xenophobia as a negative attitude expressed in words.

Theme 3: Refugee and migrant women experienced the xenophobic violence as dehumanising; isolating and excluding them from the South African community.

Theme 4: Refugee and migrant women experienced psychological responses after exposure to xenophobic violence

Theme 5: Refugee and migrant women expressed fears of repeated xenophobic violence.

While the open-ended responses from the SASRQ for DSM-5 were collected during implementation of the quantitative strand, the results are presented in Chapter 4 under the qualitative responses section.

The Qualitative Strand

The qualitative research question was developed to understand xenophobic violence from the subjective experience of those who survived it. The APA dictionary defines qualitative research as “a method of research that produces descriptive (non-numerical) data, such as observations of behaviour or personal accounts of experiences. The goal of gathering this qualitative data is to examine how individuals can perceive the world from different vantage points”(APA Dictionary of Statistics and Research Methods, 2014, p. 283). Providing respondents with the opportunity to narrate their experiences opens up the possibility of emerging issues or new concepts (Bolton et al., 2009). Such nuances may not be captured within a measuring instrument and thus, may remain undiscovered (Bolton et al., 2009, p. 182).

Design of the qualitative strand. The qualitative strand is shown in Figure 8, as Step 1 (a).

The qualitative research question. The qualitative strand of the study aimed to answer the following research question:

How do refugee and migrant women describe their experiences after exposure to xenophobic violence (human-caused disaster) in May 2008?

The section on designing the qualitative strand is a discussion which begins with the qualitative research question, followed by the data collection technique.

Qualitative data collection. There is a variety of data collection techniques in qualitative research. The data collection technique is influenced by the type of information the researcher is attempting to elicit. Qualitative data may be collected from individuals in either written form or through interviews (Hennink, Hutter, & Bailey, 2010). The appropriate data collection method in this study was the individual semi-structured interview by interview guide (Pistrang & Barker, 2012).

Conducting semi-structured interviews provided information in the form of refugee and migrant women’s experiences after exposure to the 2008 xenophobic violence. The aim of the questions was to elicit refugee and migrant women’s experiences of xenophobic violence during May 2008.

Developing the interview guide. The purpose of the interview guide is to provide the researcher with guidelines to steer the interview, while remaining flexible (Gillham, 2005). The latter is achieved through asking numerous probing questions (Gillham, 2005).

An interview guide allows for open-ended questions to prompt the interviewee to respond so the interviewee has the opportunity to share experiences of xenophobic violence with the researcher (Gillham, 2005). In phenomenological qualitative research, preconceived ideas and concepts are set aside and the phenomena is experienced through the shared narrative of the person experiencing it (Wertz et al., 2011). Therefore, the interview guide largely contained open-ended questions focused on the experiences of the refugee and migrant women. The emphasis was on their shared experiences, derived from their subjective experience of the xenophobic violence. The interview guide in the current study (Appendix 5) followed a format as suggested by Hennink et al (2010) combined with Gillham's (Gillham, 2005) recommended interview phases: preparation, initial contact, orientation and closure. Although the questions asked are open-ended, a systematic process must be in place to ensure the questions asked elicit the interviewees experiences (Hennink et al., 2010). This was applied in the current study of experiences of the xenophobic violence through the verbal expression of the participants' feelings and thoughts, thus answering the qualitative research question.

Pilot testing the interview guide. There is value in pilot testing an interview guide. It provides the researcher with the ability to refine the guiding questions because one cannot pre-empt interviewees' responses (Hennink et al., 2010). Therefore, pilot testing allows for the researcher to identify flaws or opportunities for misunderstanding in interviewees' responses. In this study, pilot testing of the interview guide took place with two participants from the ADF who met the study inclusion criteria. A checklist was adapted and used to review the questions in the interview guide during pilot testing (see Table 6). The qualitative data collected during the pilot was excluded from the main study.

Table 6

Pilot interview guide checklist

Review Item	Review Response
1. Did the interviewee understand the questions immediately?	1. Yes, both respondents understood the questions asked during the interview and thus, the interview questions did not need to be revised.
2. Were concepts, sentences and words adapted to the context of the interviewee?	2. Yes, the researcher steered clear of jargon and words that may be misunderstood, keeping the questions as clear as possible.
3. Do some questions need to be rephrased?	3. No, the questions in the interview guide did not need to be rephrased.
4. Was the order of the questions logical for the interviewee?	4. Yes, although interviewees were invited to talk about their experiences from any point. For example, one participant chose to talk about her experiences during the xenophobic violence and work her way back in time to her life before she came to the country. The other interviewee chose to start telling her story from before she came into the country and continue until after the xenophobic attacks.
5. Can the research question be answered with the information that is gathered?	5. Yes, the research question can be answered with the information gathered from the interviews.
6. Was the interview guide too long/ too short?	6. The interview guide was adequate. The researcher opted to build on information gathered from the interviewee rather than to include too many prescribed questions. All questions in the interview guide were asked to both participants.

(Adapted from Hennink et al., 2010)

Collecting the qualitative data

In Figure 8, step 1(b) in the flow chart of the research design, involves collecting the qualitative data in the current study. Semi-structured interviews were identified as an appropriate qualitative technique to explore the participant's experiences, thereby going beyond the symptom checklist of measuring instruments and meticulously exploring their subjective experience (Hennink et al., 2010). In this section, sampling, ethical considerations in research; interviews; developing the interview guide; piloting the interview guide and conducting the interviews of the qualitative strand of the current research are presented.

Sampling the respondents. All research respondents in the study were invited to participate in the interview with the researcher. Twenty-two respondents agreed to participate in the interviews after completing the questionnaire for the quantitative strand of the study.

All interviewees were provided with an informed consent form indicating that the focus of the interview would be on the xenophobic violence of May 2008. Gillham (2010) states that prior notification of the interview topic serves two purposes: an interpretive purpose, as it allows for interviewees to understand what they are consenting to and secondly, an introspective/ preparatory purpose, where interviewees may think about their experiences during the xenophobic violence in preparation for the interview.

Participants were informed that they could withdraw from the interview at any point, and there would be no impact on the services they receive from the organisations, or their own participation or status in these organisations. At the same time, participants were informed that participation would not lead to preferential treatment or services.

Conducting the semi-structured interviews. Semi-structured interviews were conducted using an interview guide that served as a supportive mechanism for the researcher and allowed for consistency across the interviews. Gillham (Gillham, 2005) affirms that "one of the strengths of the semi-structured interview is that it facilitates a strong element of discovery, while its structured focus allows an analysis in terms of commonalities" (p.72).

The interviews took place in a private room at each of the organisations. Most of the interviews were conducted on the day that the questionnaires were completed. In instances where interviewees were not available to participate in the interviews on the

same day, an alternative appointment was arranged. At all times during the interviews, the researcher was the only person present (other than the interviewee). The process of conducting the interview followed four phases as suggested by Gillham (2010) and Hennink et al., (2010).

During the semi-structured interviews, the researcher attempted to elicit the participants' subjective emotional experience after experiencing a disaster. The interviews were audio recorded because the data was drawn from the interviewees' verbal descriptions of their experiences. The type of information elicited during the semi-structured interview required that the interviewees recalled painful and emotional events in their lives. It also encouraged a relationship of trust to be established between the interviewer and interviewee through the disclosure of personal details (Gillham, 2005). A relationship of trust is not automatic and requires rapport to be established before and during the interview, but also that the researcher fosters confidence in the participant by being forthcoming about the intentions of the research. This was achieved with the informed consent form but also by the researcher reassuring respondents that their identity would be kept confidential and the information shared would be kept anonymous.

Probing or prompting serves to guide the interviewee to expand or provide clarity on their narrative account (Gillham, 2005, p. 49). Probes were captured from participants' sentences/words because interpretive phenomenological approach requires that emphasis lies on the participant's account and not preconceived ideas. Motivational probes such as "ok" or "mmm" were used to indicate the researcher's engagement and active participation in the interview (Hennink et al., 2010). Motivational probes provide encouragement to interviewees to continue telling their story (Hennink et al., 2010). The researcher also used non-verbal cues, for example, nodding her head in acknowledgment of the interviewee's answer to a question (Hennink et al., 2010). Motivational probes are used to elicit a further response to a question asked and are not contained in the interview guide. The researcher applied a discretionary approach to using probes during the interview to elicit the required information not captured during the participant's responses.

The preparation phase. This phase commences when recruitment of interviewees begins (Gillham, 2005). It is the point before the actual meeting between the researcher and the interviewee. In the current study, the researcher ensured that practical arrangements were done before the actual interview took place. For example, the researcher would arrive at least 30 minutes before the appointment to ensure that the room was organised and comfortable (Gillham, 2005). The researcher also checked the audio recorder by recording her voice and then playing it back, and that stationery

requirements, such as a pen and a notebook, were readily available for the researcher to make notes on body language and other observations, not captured by audio recordings.

The initial contact/ introduction phase. During the initial contact phase, the researcher and interviewee met before the interview began (Hennink et al., 2010). At this point of the interview process, welcome and introductory statements or questions are appropriate and necessary as it sets the tone of the interview (Gillham, 2005; Hennink et al., 2010). In the current study, the researcher would receive (in the interview room) the interviewee by greeting and introducing herself. The researcher then thanked the interviewee for coming and invited her to join her in the private, interview room. Once seated, the researcher informed the interviewee about the purpose of the interview and that during the interview, the researcher would not refer to the interviewee by name, explaining to the interviewee that the purpose of this measure was to ensure confidentiality of the audio file, also reminding the interviewee that the conversation would be audio recorded using the embedded audio recording application in the researcher's mobile phone. The researcher explained why the audio recording is done and that the audio would be transcribed and analysed. At this point, the researcher informed the interviewee that she could withdraw from the interview if she no longer wanted to participate. The researcher explained to the interviewee about the safe keeping and accessibility of the audio file. In addition, the interviewee was also informed by the researcher that she would be making notes of the conversation in her notebook during the interview. The notes served as the researcher's diary on the interview process and were not for data purposes.

The orientation phase. The orientation phase follows the initial contact phase and the information provided to the interviewee is expanded (Gillham, 2005). The purpose is to provide a smooth transition into the interview by expanding on the information given in the initial contact or introductory phase (Gillham, 2005). The researcher encouraged the interviewee to ask questions about the study as a whole and the interview process in particular. According to Hennink et al. (2010), opening questions are designed to encourage trust between the researcher and the interviewee by building rapport. Opening questions create a comfortable setting for the interviewee and fosters trust between the researcher and interviewee. Factual information (also referred to as subject descriptors earlier) was asked before the interview began.

The interview. The interview guide contains key open-ended questions for eliciting the type of information required to answer the research question (see Appendix 5). The researcher used the key questions in the interview guide to steer the interview

and was flexible enough that the interviewee, through what they said, could also give direction to the interview. The researcher used reflection to build on what the interviewee has brought across at points during the interview (Gillham, 2005). Reflecting is defined as "…offering back, essentially in the interviewee's own words, the key substance of what they have just said" (Gillham, 2005, p. 35). Reflective probing questions were asked to elicit more information from answers provided by the interviewee, further enhancing and exploring what the interviewee has said (Gillham, 2005). It is the researcher's responsibility to conduct the interview, particularly during key questioning, in an ethical manner. The interview must be terminated or paused if the interviewee requests to stop or pause the interview. It was also the researcher's duty to inquire from the interviewee if they wanted to pause or stop the interview if the interviewee became emotional or visibly uncomfortable. Privacy during the interviews was maintained by conducting the interviews in a room with only the researcher and participant present.

The closure phase. The closure phase entails the "winding down" of the narrative (Gillham, 2005, p. 79), in this case exploring experiences of xenophobic violence. It was important to end the interview in a non-abrupt manner. The types of questions asked may have elicited painful memories and left the interviewees feeling vulnerable. A common question during this phase is to ask if the interviewee has anything to add to the interview or ask about the research (Gillham, 2005). A non-verbal technique during the closure phase is to give the interviewee time to reflect on any questions. Gillham (2005) recommends that during the closure phase is where the researcher may prompt for the excluded information, still maintaining a reflective approach to asking questions. At the very end of the interview, the researcher stated that the interview had come to an end. The researcher thanked the interviewee for participating in the interview and for sharing her story and experiences.

Qualitative data analysis

In Figure 8, qualitative data analysis is shown as Step 2. It is a process that involves transcribing the interview, "coding the data, dividing the text into small units (phrases, sentences, or paragraphs), assigning a label to each unit, and the grouping the codes into themes" (Creswell & Plano Clark, 2011, p. 208).

Thematic analysis was used to analyse the data. This was done by the researcher first transcribing the audio files and then coding the data. Transcription involves converting the audio recorded during the interview into a written document (Gillham, 2005). Transcription of the audio files took place as soon as possible after the interviews.

Gillham (2005) advises transcribing as soon after the interview took place while the interview is still new in the researcher's memory. It is important to the authenticity of the transcription process to bring across emotion and mood when transcribing. Mood or emotion was expressed in transcription by adding the relevant emotion in italics and in brackets, e.g. (*angrily*) and inaudible audio was indicated by […] (Gillham, 2005).

As indicated in chapter 3, the initial codes identified from the qualitative responses were collated to form themes (Braun & Clarke, 2006). The authors define themes as: "… [capturing] something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006, p. 82).

In this study, the researcher gave consideration to the presence of the responses across the data set. These patterned responses formed the organising themes (Braun & Clarke, 2006). Several indications of a theme do not equal prominence although they do hold importance for the analysis (Braun & Clarke, 2006). Conversely, minimal qualitative responses that encapsulate a theme across the data set may hold prominence. The key consideration in prominence is that the themes must address or answer the research question and are not determined in a quantitative manner (Braun & Clarke, 2006). This consideration was the focal point upon which the researcher formed the themes. Braun and Clarke (2006) recommend that prevalence is the number of responses "…counted at the level of the data item" (p.82), giving a description of the number of instances, within the participants' responses, a particular code occurs. The emphasis of this technique is on the creation of a patterned response, which is then captured in the organised themes (Braun & Clarke, 2006). The patterns, not the frequencies, determine whether the coded data is meaningful (Braun & Clarke, 2006).

Memoing. The researcher wrote notes on various ideas, concepts and reflections throughout the interview process. The process of writing notes is known as "memoing" (Johnson & Christensen, 2010, p. 518). Memoing is a useful way of noting just about anything during the research process (Johnson & Christensen, 2010). It promotes researcher self-reflection and the authenticity of analysis and is useful for triangulation purposes. In this study, the researcher noted while memoing when more non-verbal probes were used: "used many nonverbal probes here, like nodding her head or "Just allowed interviewee to talk". Other notes included the demeanour of the interviewees. For example, the researcher noted that during one of the interviews, the interviewee's body language seemed tense at first, and as the interview progressed, she became more comfortable.

Coding the data. Before coding could begin, the researcher read the transcripts carefully. Relevant words and phrases were labelled in preparation for the coding of data. The data was coded by labelling phrases and sentences related to experiences of xenophobic violence. Coding is a process that takes place after the data was labelled. All labels that had similarities to each other were grouped together into categories (Creswell & Plano Clark, 2011).The datum collected from the interviews were stored, coded and analysed using NVIVO software (version 10). NVIVO is a qualitative data analysis software (QDAS) with the purpose of supporting qualitative research (Bazeley & Jackson, 2013). NVIVO uses a system of nodes to represent topics and groups relevant text references to that particular node (topic).

There are two kinds of approaches to coding: hand coding and computer aided coding (Creswell & Plano Clark, 2011). Hand coding is a type of coding where the words of the participants are put down on paper (transcripted) and the codes and coding themes are inserted in the margins of the paper (Creswell & Plano Clark, 2011). The second approach is to use qualitative data analysis software (QDAS). In the current study, hand coding was used for the initial coding of the transcripts. The results from the hand coding were entered into NVIVO. After the NVIVO codes were created, all transcripts were uploaded into NVIVO. The process is flexible, thus allowing for the interviewees' own words to be used as codes as well as emerging concepts identified by the researcher (Creswell & Plano Clark, 2011).

Validity and reliability of the qualitative data. Face validity determines whether the instrument or interview guide actually measures what it was designed to measure (Schreier, 2012). According to Schreier (Schreier, 2012), validity concerns "…only the relationship between a concept and an instrument…" (p.185). In the qualitative strand of this study, validity was established through the development of a coding frame for the semi-structured interviews.

Benquisto (2008) defines a coding frame as the "…guiding conceptual scheme for a research study" (p.88). In the current study, the coding frame was developed from the pilot study and then applied to the main study. The researcher allowed the codes to emerge from the text or transcripts. This allowed for evolving of the coding frame, where changes in categories, either through the addition of new categories or the collapsing of existing codes into a new category, could be developed (Benquisto, 2008).

A coding frame has low validity when there is a large portion of the transcript that does not fall into the emerging categories, and thus necessitates the creation of a residual

category (Schreier, 2012). The initial coding frame in this study contained 51 coding items. These coding items were categorised into 8 organising themes. A residual category was also created for data that could not be categorised. The use of this residual category was not frequent, therefore indicating high levels of face validity (Schreier, 2012).

Reliability of the qualitative data was achieved through inter-coder agreement. Miles and Huberman (as cited in Creswell & Plano Clark, 2011) describe inter-coder agreement as consensus reached between individuals who have coded the same transcripts after comparing individual codes assigned to text. In the current study, inter-coder agreement was achieved through the comparison codes derived from five transcripts from the main study by the researcher and dissertation supervisor. Firstly, the researcher selected the five transcripts to be coded. These were sent to the research supervisor. The researcher and supervisor conducted independent coding of the five transcripts. Once the coding was completed, the researcher and dissertation supervisor compared the codes they had created for the five transcripts. Inter-coder agreement was confirmed once consensus on the codes was reached between the researcher and her supervisor.

Merging the quantitative and qualitative data

The study followed a convergent design, which required that mixing of methods takes place in the converging of the two sets of data after analysis and in the interpretation of results (Creswell & Plano Clark, 2011). In Figure 8, this step is depicted as step 3.

The merging of results established convergence between the quantitative and qualitative findings in mental health outcomes of refugee and migrant women after exposure to xenophobic violence, thus answering the mixed methods research question:

To what extent is there concurrence between the quantitative and qualitative results on the mental health outcomes of refugee and migrant women exposed to the 2008 xenophobic violence in Gauteng, South Africa?

Merging the results took place by comparing the results of the questionnaires (quantitative method) and interviews (qualitative method). The outcome of merging results is that findings may be “congruent or divergent” (Creswell & Plano Clark, 2011, p. 223). Creswell and Plano Clark (2011) suggest three options for merging data by comparisons: “side-by-side comparisons in a discussion or summary table, joint display comparisons in the results or interpretations or data transformation in the results” (p.223). The most

appropriate option for merging results in this study was to present it as a summary table (Creswell & Plano Clark, 2011, p. 224). The side-by-side comparison is illustrated and discussed in Chapter 4.

Integration of the quantitative and qualitative results

In Figure 8, integration of the quantitative and qualitative results is step 4. Integration takes place once the quantitative results and qualitative results have been produced. In this step, the quantitative and qualitative results are synthesised after the merging of the results occurred. During synthesis, the researcher looks at the quantitative results and the qualitative results to establish "…how the information addresses the mixed methods question in a study" (Creswell & Plano Clark, 2011, p. 212). The researcher may either compare or combine results in the form of a discussion (Creswell & Plano Clark, 2011).

Teddlie and Tashakorri (2009) suggest that the interpretation of the quantitative results and qualitative results may be referred to as "inferences" and "meta-inferences" (as cited in (Creswell & Plano Clark, 2011, p. 213). The purpose of integration is to establish "…to what extent and in what ways the two sets of results converge, diverge from each other, relate to each other, and/or combine to create a better understanding…" (Creswell & Plano Clark, 2011, p. 78). The overall aim of integration is to respond to the mixed methods research question. The integration of the quantitative and qualitative results is discussed in Chapter 5.

Conclusion

In this chapter, the researcher's approach to conducting the study was discussed. This study followed a convergent mixed methods design wherein the quantitative and qualitative strands were kept independent of each other. In the quantitative strand, data was collected using demographic, SASRQ and PTGI questionnaires, while in the qualitative strand, data was collected using semi-structured interviews with an interview guide. Mixing of methods took place during the interpretation of the quantitative and qualitative results. The next chapter focuses on the results of the study.

Chapter 4: Results

The chapter begins with the presentation of the quantitative results, followed by qualitative findings

Quantitative results

The quantitative results section includes a discussion on descriptive and inferential statistics.

Descriptive statistics. A total of 104 female participants completed the quantitative questionnaires. There were no participant refusals, representing a 100% response rate. One participant was South African and therefore not eligible for inclusion in the study. The final number of participants was 103.

Table 7 shows the demographic characteristics of the respondents. The mean age of participants was 33 (SD=8), with a range of 18 to 48 years old (n = 84; M=33; SD=8). The majority of the participants were Congolese (51.9%), 7.69% of participants were from Zambia, 6.7% were from Zimbabwe. The majority of the participants (47%) were married, 34% were single, 9% were widowed, 7% living together, and 6% were divorced/separated. The majority of participants (83.9%) had some form of education: 8.6% of the participants completed primary education; 52.6% secondary education; and 8.2% of the participants were graduates or professionals.

Ethnicity was re-coded as either refugee or migrant. The refugee group consisted of the women from Burundi, the Democratic Republic of the Congo, Ethiopia, Rwanda, Somalia and Zimbabwe. The migrant group consisted of the women from Zambia. These groupings are consistent with the literature classification of refugees and migrants (United Nations High Commissioner for Refugees (UNHCR), 2006). The re-coding allowed for streamlined analysis of the independent and dependent variables.

Table 8 shows participants who self-reported multiple exposures to xenophobic violence and their perceived level of disturbance from exposure to xenophobic violence. 22.3% of participants indicated that they had experienced the xenophobic violence directly and 41.8% reported multiple exposures to xenophobic violence.

Table 7

Demographic characteristics of participants N=103

Variables	n	%
Gender		
Female	103	100
Age group (in years)		
18 – 27	17	20.5
28 – 37	42	50.6
38 – 47	22	26.5
>48	2	2.4
Status		
Refugee	95	92.2
Migrant	8	7.80
Ethnicity		
Congolese	54	52.4
Burundian	27	26.2
Ethiopian	1	1.00
Rwandan	5	4.80
Somalian	1	1.00
Zambian	8	7.70
Zimbabwean	7	6.80
Marital Status		
Married	47	45.6
Living together	7	6.80
Single	33	32.0
Divorced/separated	6	5.80
Widowed	9	8.70
Religion		
Buddhist	0	0.00
Christian	60	58.3
Hindu	0	0.00
Muslim	43	41.7
None	0	0.00
Other	0	0.00
Highest level of education		
Primary	15	14.6
Secondary	50	48.5
Vocational	9	8.70
University	11	10.7
Professional	7	6.80

Table 8

Frequencies of level of exposure to xenophobic violence and perceived level of disturbance

Variables	n	%
Exposure to xenophobic violence (n=93)		
Experienced this event directly	23	22.3
Witnessed it in person	4	3.90
Learnt that the event happened to a family member or close friend	23	22.3
Experienced this event directly & witnessed it in person	7	6.80
Witnessed it in person & learnt that the event happened to a family member or close friend	7	6.80
Experienced this event directly & Learnt that the event happened to a family member or close friend	7	6.80
Experienced this event directly, witnessed it in person & learnt that the event happened to a family member or close friend	22	21.4
Level of disturbance (n=96)		
0 not disturbing at all	1	1.00
1	1	1.00
2	1	1.00
3	0	0.00
4	3	2.90
5	8	7.80
6	3	2.90
7	2	1.90
8	7	6.80
9	10	9.70
10 extremely disturbing	60	58.3

Other SASRQ results. Table 9 illustrates participants' responses of duration of considerable distress, duration of negative affect of functioning and intoxication or syndrome of substance withdrawal (DSM-5 Criterion E: Rule-outs). Almost half of the participants (49%) attributed exposure to xenophobic violence as having had a negative effect on their relationships and other areas of functioning, lasting 5 (or more) days. 9.7% of participants' symptoms may be related to self-reported experiences of intoxication or withdrawals and not to the presence of ASD symptoms. Diagnostics by a clinician beyond the self-reported questionnaire would be required to establish intoxication or withdrawals.

The purpose of this study was not diagnostic; therefore the rule-outs (9.7%) were not excluded from the overall results.

Table 9

Frequencies of other SASRQ results

Variables	n	%
Considerable distress (n=31)		
0 days	3	2.9
1 day	1	1.0
2 days	3	2.9
3 days	8	7.8
4 days	16	15.5
5 days or more	0	0
Negatively affect areas of functioning (n=103)		
0 days	4	3.9
1 day	1	1.00
2 days	3	2.90
3 days	8	7.80
4 days	28	27.2
5 days or more	51	49.5
Intoxicated or syndrome of substance withdrawal (n=95)		
Yes	10	9.70
No	85	82.5

Table 10 illustrates the overall SASRQ and PTGI mean and median scores. Participants reported elevated levels of overall ASD symptomatology, with the median SASRQ-total score of 109 (IQR = 44.0). Similarly, participants reported moderate levels of growth overall, with the median PTGI-total score of 64.0 (IQR = 35.0).

Table 10

SASRQ symptom subscale, PTGI factors and scale-total distribution and dispersion for the whole sample

Variable		Mean	Std. Deviation	Median	Interquartile Range (IQR)	Possible scale range (min.-max.)
SASRQ						
Intrusion symptoms	99	5.1	6.84	26.0	21-30	0 - 35
Negative mood symptoms	8	10.1	4.01	11.0	7-13	0-15
Dissociative symptoms	102	6.0	8.20	28.0	22-32	0-40
Avoidance symptoms	99	3.9	4.33	15.0	11-17	0-20
Arousal symptoms	102	6.5	5.86	17.5	14-21	0-25
Impairment symptoms	101	2.7	4.93	14.0	9-17	0-20
SASRQ-total	102	102.5	33.29	109.0	84-128	0-155
PTGI						
PTGI- I: Relating to others	103	18.6	6.87	23.0	14-27	0-30
PTGI- II: New possibilities	96	15.1	6.08	15.0	11-20	0-25
PTGI-III: Personal strength	95	12.8	4.71	14.0	9-17	0-20
PTGI-IV: Spiritual change	93	6.9	2.70	7.0	5-10	0-10
PTGI- V: Appreciation of life	97	10.4	3.62	11.0	8-13	0-15
PTGI-total	103	100.0	62.1	64.0	49-84	0-105

Quantitative research question 1

ASD symptoms in refugee and migrant women after exposure to xenophobic violence. An independent samples t-test was conducted to establish if there were differences in SASRQ symptom subscales and SASRQ-total symptoms score between refugee and migrant women (see Table 11). There was a significant difference in impairment symptoms between the refugee and migrant women, with refugee women reporting higher levels of impairment symptoms than migrant women, $M = 1.07$, 90% CI [0.32, 1.82], $t(98) = 2.39$, $p = 0.02$). The SASRQ-total scores were elevated for refugee ($M = 103.3$, $SD = 33.4$) and migrant ($M = 93.0$, $SD = 33.2$) women and the difference in the score was not statistically significant, $M = 10.26$, 90% CI [-11.4, 31.9], $t(100) = 0.78$, $p = 0.43$). Thus, we fail to reject the null hypothesis at a 90% confidence level.

Table 11

Independent sample t-test for ASD symptoms by refugee and migrant grouping

Variable	Refugee M(SD)	Migrant M(SD)	*t*-test	df	p-value	90% CI of the difference	
						Lower	Upper
Intrusion symptoms	3.77 (0.94)	3.41 (1.15)	0.96	97	0.38	-0.26	0.98
Negative mood symptoms	3.56 (1.30)	2.92 (1.52)	1.22	96	0.23	-0.23	1.48
Dissociative symptoms	3.60 (0.90)	3.22 (1.09)	1.07	98	0.29	-2.11	0.96
Avoidance symptoms	3.70 (1.04)	3.14 (1.09)	1.37	97	0.18	-0.12	1.24
Arousal symptoms	3.60 (1.04)	3.11 (1.25)	1.18	100	0.24	-0.20	1.17
Impairment symptoms	**3.47 (1.14)**	**2.39 (1.21)**	**2.39**	**98**	**0.02***	**0.33**	**1.82**
SASRQ-total	103.3 (33.4)	93.0 (33.2)	0.78	100	0.43	-11.4	31.9

Quantitative research question 2

Posttraumatic growth (PTG) in refugee and migrant women after exposure to xenophobic violence. An independent sample t-test using refugee and migrant groupings and PTGI factors and PTGI-total demonstrated the differences between refugee and migrant women and the presence of self-reported PTG after exposure to xenophobic violence (see Table 12). There was a significant difference in refugee and migrant women's mean scores on PTGI-II (New possibilities), $t(94) = 1.88$, $p = 0.06$. Refugee women reported experiencing higher growth ($M = 3.29$, SD = 1.17) in New possibilities than migrant women ($M = 2.40$, SD = 1.56) after exposure to xenophobic violence. PTGI-total scores showed that moderate levels of growth occurred for refugee ($M = 63.7$, SD = 26.7) and migrant women ($M = 51.6$, SD = 31.4), with no significant differences between the groups, M = 12.1, 90% CI [-4.43, 28.6], $t(101) = 1.21$, $p = 0.23$). Thus, we fail to reject the null hypothesis at a 90% confidence level.

Table 12

Independent sample t-tests for PTG by refugee and migrant grouping

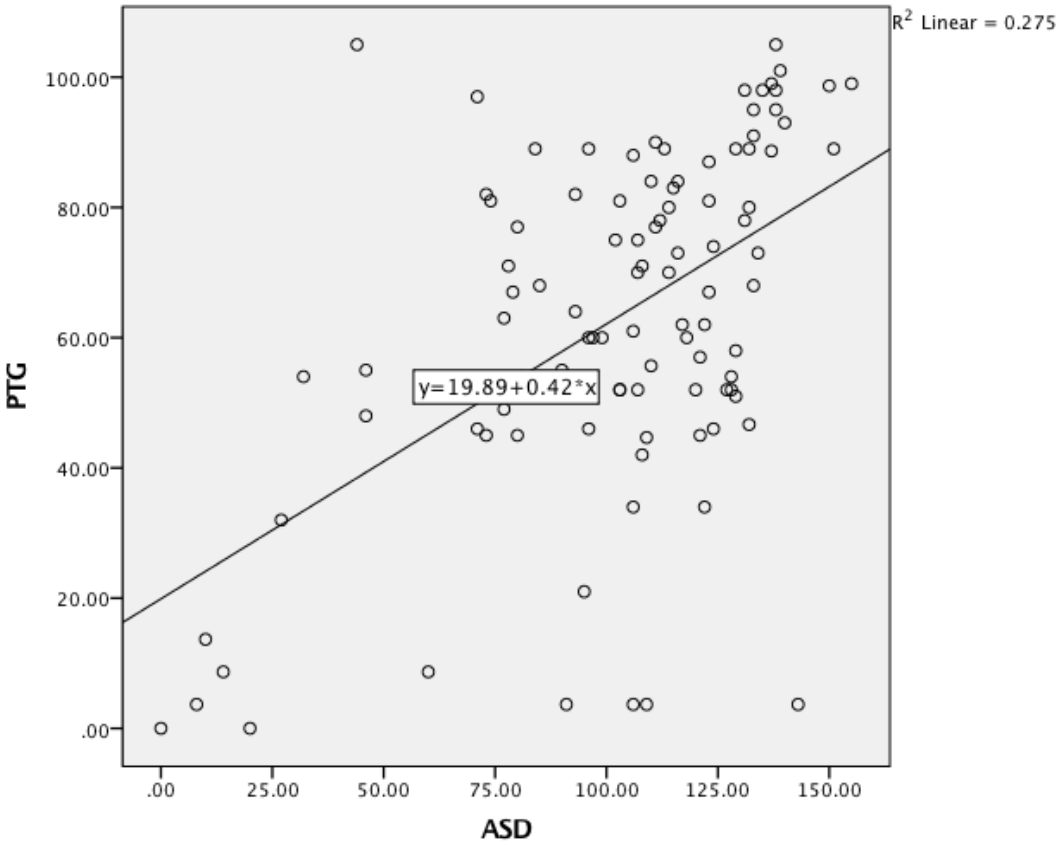
Variable	Refugee M(SD)	Migrant M(SD)	*t*-test	df	p-value	90% CI of the difference	
						Lower	Upper
PTGI- I: Relating to other	3.41 (1.07)	3.36 (1.09)	0.12	101	0.91	-0.61	0.70
PTGI- II: New possibilities	**3.29 (1.17)**	**2.40 (1.56)**	**1.88**	**94**	**0.06**	**0.10**	**1.66**
PTGI-III: Personal strength	3.50 (1.13)	3.32 (0.93)	0.40	93	0.69	-0.55	0.90
PTGI-IV: Spiritual change	3.70 (1.31)	3.17 (1.36)	0.98	91	0.33	-0.38	1.46
PTGI- V: Appreciation of life	3.68 (1.15)	3.44 (1.16)	0.50	95	0.62	-0.57	1.05
PTGI-total	63.7 (26.7)	51.6 (31.4)	1.21	101	0.23	-4.43	28.60

Quantitative research question 3

The relationship between acute stress disorder (ASD) symptoms and post traumatic growth (PTG) in refugee and migrant women exposed to xenophobic violence. Figure 10 depicts a scatterplot showing the relationship between ASD symptoms and PTG in the overall sample, with the regression line. Pearson's correlation test was conducted using SPSS to determine the nature of the relationship between ASD symptoms and PTG. PTG was correlated with ASD symptoms, (r = 0.525, n = 102, p < .10) in the overall sample, with a statistically significant relationship between the two variables. The regression line indicates that increases in ASD symptoms were associated with increases in PTG. Thus, the null hypothesis is rejected at the 90% confidence level.

Figure 10

Scatterplot with regression line



A multiple regression analysis was used to predict PTG from SASRQ subscales (intrusion symptoms, negative mood symptoms, dissociative symptoms, avoidance symptoms, arousal symptoms, and impairment symptoms). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. The results indicated that all six subscales predictors explained 17.9% of the variance (R^2=.23, F(6, 91)=509, p<.0001. A statistically significant prediction was seen for all six subscales, p< .10. Table 13 illustrates the regression coefficients and standard errors.

Table 13

Summary of multiple regression analysis

Variable	B	SE_B	β
1. Intercept	22.3	9.57	
2. Intrusion symptoms	2.18	.776	.600*
3. Negative mood symptoms	-.653	1.11	-.106*
4. Dissociative symptoms	-.062	.663	-.018*
5. Avoidance symptoms	-.301	.935	-.053*
6. Arousal symptoms	.002	.841	.000*
7. Impairment symptoms	.045	.764	.009*

Note: *p < .10

Reliability of the SASRQ II & PTGI. Table 14 shows the results of the Reliability Analysis, performed using Cronbach's alpha on the measuring instruments in the main study. None of the items on both instruments were removed because the reliability score of all symptoms was sufficient to warrant the inclusion of all items: SASRQ II total α =.937; PTGI total α = .889.

Table 14

Internal consistency of the SASRQ II and PTGI

Variable	(n=103)	No. of items
SASRQ		
Dissociative symptoms	.819	8
Intrusion symptoms	.807	7
Negative mood symptoms	.819	3
Avoidance symptoms	.725	4
Arousal symptoms	.771	5
Impairment symptoms	.757	4
SASRQ-total	.937	31
PTGI		
PTGI-I: Relating to others	.832	7
PTGI-II: New possibilities	.784	5
PTGI-III: Personal strength	.744	4
PTGI-IV: Spiritual change	.542	2
PTGI-V: Appreciation of life	.659	3
PTGI-total	.889	21

Qualitative results

There were two sources of qualitative responses in this study, i.e. the SASRQ qualitative responses to the open-ended items in the questionnaire and the responses to the semi-structured interviews. Both sources addressed the qualitative research question of refugee and migrant women's experiences of xenophobic violence.

The section details the analysis of the qualitative data through the process of reviewing the data extracts, to forming codes and themes (Braun & Clarke, 2006). Each theme is described with sub-themes, codes and a response from the qualitative data. The prevalence of each code is given in Table 15.

Qualitative analysis of the SASRQ open ended responses. The prevalence indicated are a reflection of participants who responded in writing (n=58) to the open-ended sections of the SASRQ questionnaire. Table 15 illustrates the 5 overarching themes identified from thematic analysis.

Theme 1: Refugee and migrant women exposed to xenophobic violence described experiences of physical harm. This theme is related to the manner in which refugee and migrant women described their exposure to the xenophobic violence which took place in May 2008. Both refugee and migrant women were exposed to the xenophobic violence in different ways. Some were harmed directly; others witnessed the attacks happen to others, or had family members, friends and neighbours who were harmed during the attacks.

Sub-theme 1.1: Physical harm to self and others (family and/or friends). Participants indicated that they were physically harmed by perpetrators during the xenophobic attacks. Sixteen participants described being beaten by perpetrators of xenophobic violence.

> *It was around past 6pm. I just can [hear] people singing makwerekwere hamba. Know the meaning. I just sit in my room. Suddenly they break my door beat me and ask me to leave without nothing. I was shocked and run to the Cleveland police* (Participant #98, Refugee woman from the Democratic Republic of the Congo)

One participant described her husband being beaten.

During the xenophobic violence I lost everything that was in the house, my husband was also beaten very badly… (Participant #29, Refugee woman from the Democratic Republic of the Congo)

These comments from participants are conclusive in finding that xenophobic violence is an act of violence perpetrated against refugee and migrant women (and their family members). And furthermore, the comments were clear that acts of violence resulted in physical harm to the refugee and migrant women from direct exposure to xenophobic violence.

Sub-theme 1.2: Loss of property/ personal belongings. Ten participants reported the loss of property or personal belongings through the actions of perpetrators of the xenophobic violence.

It was difficult because they were beating and taking your things if you're selling (Participant #18, Refugee woman from Zimbabwe)

I have lost a lot of things. I was scared and we were taken to a camp (Participant #33, Refugee woman from Burundi)

…I was kicked out of my own house with my children. We were renting the house and it belonged to a South African. When the owner of the house threatened us, we decided to run to the police station (Participant #62, Refugee woman from the Democratic Republic of the Congo)

Exposure to xenophobic violence not only resulted in physical harm, it also resulted in the loss, destruction and theft of property and belongings. Forcible removals or eviction from homes were also a key physical outcome of the xenophobic violence.

Sub-theme 1.3: Death of family members. One participant indicated the loss of two family members during the xenophobic violence.

I was very afraid, my parents died through that (Participant #23, Refugee woman from the Democratic Republic of the Congo)

This comment illustrates the far-reaching implications that exposure to xenophobic violence has for those who are affected by it.

Theme 2: Refugee and migrant women experienced xenophobia as a negative attitude expressed in words. Eight participants described the forms xenophobia takes in the attitude (e.g. name-calling) of xenophobic individuals.

> *My neighbours were not willing to accept me and kept calling me names because of where I came from. I felt neglected, rejected and disappointed by the reaction of people* (Participant #103, Refugee woman from Burundi)

Xenophobic violence was not only enacted through the violence perpetrated against refugee and migrant women, it was also expressed in negative and xenophobic attitudes with the intent to harm refugee and migrant women. As one participant expressed in the comment above, this led to feelings of neglect, rejection and disappointment.

Theme 3: Refugee and migrant women experienced the xenophobic violence as dehumanising; isolating and excluding them from the South African community. Twenty-nine participants shared feelings of being degraded from exposure to xenophobic violence. Five participants reported feeling excluded and isolated from the South African community.

> *I felt like we are not existing because we were treated like animals* (Participant #20, Refugee woman from Zimbabwe)

> *I felt insecure and not wanted in South Africa* (Participant #49, Refugee woman from the Democratic Republic of the Congo)

These comments illuminate that exposure to xenophobic violence does not only results in physical harm – the women in the study recognised and acknowledged that it has the potential to cause psychological harm as well. Regardless of which form xenophobia comes in, i.e. violence or attitude, both forms have the potential to cause physical and psychological harm.

Theme 4: Refugee and migrant women experienced psychological responses after exposure to xenophobic violence. Twenty-three participants described being scared during the xenophobic violence. Insecurities were also indicated and attributed to xenophobic violence.

> *I felt bad, confused, stressed and betrayed by all those events. I was scared to live in this country because of those events but I had no choice* (Participant #37, Refugee woman from the Democratic Republic of the Congo)

> *I was emotional for some time, everything seems wrong. I remember wanting to go back to my country after the terrifying attacks because I was feeling insecure* (Participant #57, Refugee woman from the Democratic Republic of the Congo)

The participants showed a self-awareness of the psychological symptoms they asosciated with exposure to xenophobic violence. These were evident through the use of words to described psychological response such as feeling stressed, confusion, insecurity, etc. These responses are indicative of anxiety symptoms.

Theme 5: Refugee and migrant women expressed fears of repeated xenophobic violence. Twenty participants shared their perceived lack of feeling safe and secure. These feelings were often intertwined with fearing that the attacks will happen again.

> *After all those xenophobic violence I told myself that I am not going to be safe anymore here. I would even go home if there was no war. Because what xenophobic blacks did, they are going to beat us again one day* (Participant #39, Refugee woman from Burundi)

> *I was still insecure and afraid that it might happen again* (Participant #55, Refugee woman from the Democratic Republic of the Congo)

Fears were a key feature of the comments presented here. The women were ardent about the fears and insecurities they had about living in South Africa because of the ever-present threat of repeated xenophobic violence.

Table 15

Themes identified from the SASRQ II open responses

Codes	Sub-themes	Themes
1. Harm to self and others (16 of 58) 2. Stealing of personal belongings and damage to property; forcibly evicted from homes (10 of 58) 3. Family members killed (2 of 58)	1.1 Physical harm to self and others (family and/or friends) 1.2 Loss of property/ personal belongings 1.3 Death of family members	1. Refugee and migrant women exposed to xenophobic violence experienced physical outcomes.
4. Xenophobia in words (8 of 58)	N/A	2. Refugee and migrant women experienced xenophobia as a negative attitude.
5. Being “treated like animals” (10 of 58) 6. Not able to work (5 of 58) 7. Removed from communities; taken to camps for safety (8 of 58) 8. Feelings of betrayal by other humans (15 of 58)	N/A	3. Refugee and migrant women experienced the xenophobic violence as dehumanising; isolating and excluding them from the South African community.
9. Feeling stressed and traumatised (10 of 58) 10. Feeling angry; hurt (13 of 58)	N/A	4. Refugee and migrant women experience psychological responses from exposure to xenophobic violence.
11. Prevailing fear of repeated violence (20 of 58)	N/A	5. Refugee and migrant women expressed fears of repeated xenophobic violence.

Semi-structured interviews

A total of 22 women, who had completed the questionnaires, also participated in the semi-structured interviews. The participants ID numbers were the same throughout the study for the purpose of linking their demographic details in the semi-structured interviews. Table 16 illustrates the characteristics of the 22 participants.

Table 16

Characteristics of the interview participants

Characteristic	N (%)
Gender (n=22)	
Female	22 (100)
Ethnicity (n=22)	
Burundian	2 (9.10)
Congolese	10(45.5)
Zambian	5 (22.7)
Zimbabwean	5 (22.7)
Age (n=19)	
18 – 27	5 (26.3)
28 – 37	12 (63.1)
38 – 47	1 (5.26)
>48	1 (5.26)
Marital Status (n=22)	
Single	6 (27.3)
Married	9 (41.0)
Divorced/Separated	2 (9.10)
Widowed	4 (18.2)
Education (n=20)	
Primary	5 (25.0)
Secondary	9 (45.0)
Vocational	2 (10.0)
University	1 (5.00)
Professional	2 (10.0)

The women shared their experiences of xenophobic violence, also incorporating narratives of their lives before and after the xenophobic violence occurred. Their shared experiences extended beyond a single point in time (when the xenophobic violence took place). These stories give context to the experience of xenophobic violence and therefore also address the research question. Table 17 presents the analysis showing nine themes, with five themes out of the nine containing sub-themes. Exemplary data extracts are provided in the reporting of the results per sub-theme. Prevalence of codes across the dataset are provided in Table 17.

Table 17

Semi-structured interviews themes

Codes	Sub-themes	Themes
1. Beatings (11 of 22) 2. Stealing phones and money (5 of 22) 3. Family members killed (2 of 22)	1.1 Physical harm 1.2 Death of family members 1.3 Damage to property/ stealing of personal belongings	1. Refugee and migrant women experienced physical harm to self and/or belongings after exposure to xenophobic violence.
4. Feelings of fear (22 of 22) 5. Fearing for safety of self and family (22 of 22) 6. Feelings of confusion (5 of 22) 7. Feeling traumatised (12 of 22) 8. Crying (7 of 22) 9. Not sleeping(6 of 22) 10. High blood pressure (5 of 22) 11. Heart palpitations (1 of 22)	2.1 Trauma-related anxiety 2.2 Behavioural responses to xenophobic violence 2.3 Emotional responses	2. Refugee and migrant women experienced psychological and behavioural responses from exposure to xenophobic violence.
12. Thinking about war (15 of 22) 13. Thinking about family who died in the war (8 of 22) 14. Re-experiencing war (15 of 22)	N/A	3. Refugee women were reminded of previous trauma from their exposure to xenophobic violence.
15. Dehumanising (8 of 22) 16. Treated like animals (1 of 22) 17. Rejection(11 of 22) 18. Why perpetrators harmed them? (16 of 22)	N/A	4. Refugee and migrant women described exposure to xenophobic violence as dehumanising.
19. Seeking refuge during xenophobic violence (5 of 22) 20. Safety and security at police stations (5 of 22) 21. Police stopping xenophobic violence (4 of 22)	5.1 The police as protectors and carers 5.2 Aid organisations provided relief in camps	5. Refugee and migrant women experienced safety and aid provided during the xenophobic violence.

22. Police as protectors of people exposed to xenophobic violence (5 of 22) 23. Refugee camps (8 of 22) 24. Providing relief (4 of 22) 25. State of living conditions (1 of 22) 26. Choosing to stay at home(4 of 22)		
27. Reminders of xenophobic violence (20 of 22) 28. Xenophobia (attitude) directed towards refugee and migrant women (12 of 22) 29. Limits in movement/freedom (10 of 22)	6.1 There is a prevailing fear of repeated xenophobic violence	6. Living in the aftermath of xenophobic violence
30. Exclusion from the working environment (15 of 22) 31. Lack of acceptance (7 of 22) 32. Xenophobic sentiments from colleagues (1 of 22)	6.2 Excluded from the economy & access to civil services	
33. Forming social bonds with others is difficult (11 of 22) 34. Neighbours show dislike (1 of 22) 35. Unable to get help from others (1 of 22)	6.3 Continued xenophobic sentiments hamper social integration into the larger community	
36. Speaking English as an identifier of being foreign (20 of 22) 37. Language as an identifier that one is a foreigner (11 of 22) 38. Language as an exclusionary tool (1 of 22) 39. South Africans expectations of refugees and migrants knowing languages on arrival (1 of 22)	6.4 Xenophobic sentiments are fostered through language	
40. Nothing left in home country (10 of 22) 41. Cannot return to home country (10 of 22)	6.5 Feeling trapped between violence here and returning to nothing in their home countries	
42. Cannot move around or use transport	6.6 Diminished sense of freedom and mobility	
43. Women taking forefront in providing for the household (10	6.7 Shifting gender roles in the aftermath of	

of 22) 44. Men leaving their families (2 of 22)	xenophobic violence	
45. Spiritual beliefs (8 of 22) 46. Sharing problems with family and friends (5 of 22) 47. Finding and giving encouragement and strength in/to others (5 of 22)	N/A	7. Refugee and migrant women shared experiences of growth after exposure to xenophobic violence.
48. Escaping war (15 of 22) 49. A better life with employment opportunities (7 of 22) 50. Living a good life (1 of 22)	8.1 Reasons for coming to South Africa 8.2 Sense of sharing and community	8. Living in South Africa pre-May 2008.

Theme 1: Refugee and migrant women experienced physical harm and losses from exposure to xenophobic violence. Participants shared experiences of exposure to the xenophobic violence, all of which demonstrated negative, physical harm from exposure to xenophobic violence.

Sub theme 1.1: Physical harm to self and others. Participants spoke of the physical harm they experienced at the hands of perpetrators of xenophobic violence.

> *I was almost raped…Then the police came…They found me on the floor. My husband was sitting in the corner* (Participant #100, Refugee from the Democratic Republic of the Congo)

> *They wanted to kill me because they said my language doesn't sound South African. I know a bit of Zulu but they said I am not South Africa because my language is not proper…I ran away fast* (Participant #14, Migrant from Zambia)

One participant witnessed perpetrators of xenophobic violence harm a visitor in her home.

> *They came with stones and started throwing at us. I had a visitor. They beat him and they took off his clothes and took his bag. He left there naked* (Participant #71, Refugee from the Democratic Republic of the Congo)

It is evident from the comments that refugee and migrant women experienced direct, physical harm from exposure to xenophobic violence. The physical harm was not only perpetrated towards the refugee and migrant women, but also towards men.

Sub theme 1.2: Loss and death of family members. Participants told of family members who had been killed (or feared killed) after the xenophobic violence took place.

> *Because that's when my cousin went missing until now. So many years, we don't know where she is. Maybe she died*…(Participant #103, Refugee woman from Burundi)

> *…If you were walking they would beat you. My aunty died, now she's no longer here…So I am the only one* (Participant #16, Refugee woman from Zimbabwe)

These comments illuminated that exposure to the xenophobic violence resulted in the loss and death of family members.

Sub theme 1.3: Damage to property/ stealing of personal belongings. Participants expressed having witnessed the damage to property or stealing of belongings of others.

> *…they burned this person's shop down because he is a foreigner. They were chasing them away* (Participant #22, Migrant woman from Zambia)

> *…what made me more scared was the way I saw people breaking the shops of foreigners, people like Ethiopians, Somalians…I saw that looking outside through the windows* (Participant #29, Refugee woman from the Democratic Republic of the Congo)

It is evident from the comments that xenophobic violence was not only about the physical harm of others, but also the destruction of property and stealing of belongings.

Sub-theme 1.4: Displacement & disruption during xenophobia. During the attacks, participants were separated from their families or family members. One participant described her home being looted by perpetrators.

> *I left the food and grabbed my children and I said we are going to the police station…So I took only one blanket and a phone in case my husband decides to contact me. I must be able to tell him where I am* (Participant #12, Refugee woman from the Democratic Republic of the Congo)

> *Then those people came…they manage to open our door. They took everything in the house…I told my husband we have to go from here* (Participant #100, Refugee from the Democratic Republic of the Congo)

These comments illuminated the disruption of family networks during the xenophobic violence. Further to this, displacement from homes was also a key feature of the xenophobic violence. Perpertrators of xenophobic violence aimed to evict refugee and migrant women (and by extension, their families) from their homes.

Theme 2: Refugee and migrant women experienced psychological and behavioural responses from exposure to xenophobic violence. Being exposed to xenophobic violence resulted in various psychological and behvioural responses.

Sub-theme 2.1: Trauma-related anxiety. Participants were self-aware of the psychological symptoms they experienced after exposure to the xenophobic violence. These symptoms may be associated with trauma-related anxiety.

It was so painful because I did not expect that…That event [xenophobic violence] shocked me a lot…I saw it myself in the street (Participant #69, Refugee woman from the Democratic Republic of the Congo)

You know what I was disturbed, when you are staying somewhere you have to be free but here in South Africa I was very disturbed, I couldn't go out…I would just sit in the house (Participant #18, Migrant woman from Zambia)

By then I was scared. I never even used to go out because as you know it was targeted mainly on foreigners…It affected me as a foreigner because it was based on foreigners (Participant #20, Migrant woman from Zambia)

There was a self-awareness and acknolwedgement of the psychological symptoms the women associated with their exposure to xenophobic violence. They spoke of these psychological symptoms they associated with xenophobic violence with clarity, through words such as disturbed, scared, and being shocked by the events.

Sub-theme 2.2: Behavioural responses. The women reported behavioural responses they experienced from exposure to the xenophobic violence.

I was pregnant, 3 months pregnant, it was very traumatising for me … it was my first child and when these attacks occurred I was sad … it feared me a lot, I couldn't sleep, I couldn't sleep, I was afraid to go out… to go to the clinic for check-up, I couldn't go, it was very traumatising (Participant #1, Migrant woman from Zambia)

I was stressed until today. I started having high blood pressure until today. I am chronic and I am taking medication since that time (Participant #12, Refugee woman from the Democratic Republic of the Congo)

I went to hospital and they said the ulcers and heart burn don't want me to stress too much because I am going to die and I still need to be there for my children (Participant #14, Migrant woman from Zambia)

A key feature of these comments is that the women attributed the behavioural responses, such as sleeplessness or high blood pressure, to exposure to the xenophobic violence. There was also an acknowledgement of those symptoms, particularly medical conditions, were prolonged and as a result of exposure to the xenophobic violence.

Theme 3: Refugee women were reminded of previous trauma through their exposure to xenophobic violence. For refugees, the reasons for coming to South Africa were because of war in their home countries. This sub-theme overlapped with memories or reflections on previous exposure to trauma or human-made disaster (war).

> *And then when they were attacking in Congo, they went to the market where my mother was selling. They started attacking my mother and beating her…They beat up my mother until she lost conscious…I was taking care of my mother and then I lost her. When they find you, they put a car tyre around your neck and put fire… I left my country because of this problem and now it is here as well* (Participant #12, Refugee woman from the Democratic Republic of the Congo)

> *…because where we are coming from we come from those places where we were maltreated. We were running for safety but when we find ourselves here again, it is like they brought us back to those pains that we were experiencing from where we come from* (Participant #69, Refugee woman from the Democratic Republic of the Congo)

These comments illuminated the far-reaching complexities associated with exposure to xenophobic violence. The reminders of previous trauma appear to have an emotional impact on the refugee women, particularly as one woman referenced the pain of where they come from and the war they have experienced in their home countries.

Theme 4: Refugee and migrant women described exposure to xenophobic violence as dehumanising. In this theme, the notion of humanity is expressed through participants attempting to understand why another human being would perpetrate xenophobic violence. Participants shared a sense of disbelief and betrayal that another human being could do harm in the manner which took place during the xenophobic violence.

> *I was feeling very bad but I was thinking for what? I am human like them. Why do they treat me like this?* (Participant #3, Refugee woman from the Democratic Republic of the Congo)

> *I didn't understand why. I still don't understand why because…how can I put this? We're foreigners, we came here…because of bad circumstances at home…And now they're chasing us because we're foreigners* (Participant #5, Refugee woman from the Democratic Republic of the Congo)

There is a glimpse of hopelessness in the comments above, coupled with a sense of betrayal the women shared about perpetrators of xenophobic violence.

Theme 5: Refugee and migrant women experienced safety and aid provided during the xenophobic violence. Participants recognised the role that police and aid agencies played during the xenophobic violence.

Sub-theme 5.1: The police as protectors and carers. The police were seen as protectors during the xenophobic violence:

> *Because one day they say you have to go to Cleveland police station because they are taking refugees, if you go there if there are attacks the police will take care of you* (Participant #1, Migrant woman from Zambia)

> *I know the police patrol there…when the police are there you feel it's good because the police will see the people* (Participant #9, Refugee woman from Zimbabwe)

Refugee and migrant women acknowledged the role policeman played during the xenophobic violence in protecting them. The visibility of the policemen was expressed as serving as a deterrent for incidences of xenophobic violence.

Sub-theme 5.2: Aid organisations provided relief in camps. Participants acknowledged the support from relief organisations to people living in camps:

> *There was this day…there were so many organisations that came here. There was Red Cross; there was Gift of the Givers…Organisations used to come and give us food, clothing and support. The UN [United Nations] came one day, they said we have to tell them what is happening in the camp and what has happened…We just told them what was happening* (Participant #100, Refugee woman from the Democratic Republic of the Congo)

Although the camps were set up to provide a safe haven to those affected by the xenophobic violence, xenophobic sentiments were reported as also present in those camps. Apart from the xenophobic sentiments present, the conditions were described as inhumane and uninhabitable by one participant.

> *Staying in a camp was difficult…It was winter and people who were attending to us were not friendly. They were the same South Africans. When they were giving us food it was like we are prisoners. They were throwing food at us and it was unbearable to live in the camp* (Participant #100, Refugee woman from the Democratic Republic of the Congo)

Three participants decided to not go to the camps, opting to rather hide at home because they felt they would be safer there. One participant described her decision to seek refuge at home:

> *No I did not go [to the camp]…I did not see the use to go there because this side, in the street like this you were afraid but when you are in the house, if you closed yourself in you were a bit safe* (Participant #69, Refugee woman from the Democratic Republic of the Congo)

Life in the camps was difficult and although aid was provided, escaping xenophobic sentiments seemed impossible. There was an acknowledgment of aid provided through relief organisations, but there was a report of xenophobic tendencies present in the camp.

Theme 6: Living in the aftermath of xenophobic violence. Eight sub-themes were identified, capturing the theme of living in the aftermath of xenophobic violence. In this theme, participants narrated about their lives after the xenophobic violence had occurred.

Sub-theme 6.1: There is a prevailing fear of repeated xenophobic violence. The possibility that the xenophobic violence may re-occur was a predominant fear expressed by participants.

> *…when Mandela died they were telling us that our father who dies is the one who was protecting us. This time they are going to kill us if we do not want to leave their country. And then we just said hey it is their country, we cannot do anything. They are the ones who are going to decide. We are foreigners* (Participant #70, Refugee woman from the Democratic Republic of the Congo)

> *We started preparing for the event [after hearing about isolated attacks after the xenophobic violence]. It's coming, when is it coming? We're still waiting. When people are striking we're thinking it's coming…during elections, during strikes, during fights, anything that happens…it just brings back those things* (Participant #5, Refugee woman from the Democratic Republic of the Congo)

Sub-theme 6.2: Exclusion from the economy and access to civil services. Participants felt excluded from contributing to the economy of South Africa, even though they felt they have the skills to be gainfully employed. Participants attributed the exclusion from taking part in the economy through employment to xenophobic attitudes of South African employers.

> *Where can I get a job to work? They don't accept me, not even my husband. My life is not good* (Participant #3, Refugee woman from the Democratic Republic of the Congo)

> *I have a place in the market Jeppe [street], but sometimes I am scared to go and sell there because those people say this is their country. They are going to kill foreigners* (Participant #71, Refugee woman from the Democratic Republic of the Congo)

Participants shared negative experiences of xenophobia from civil servants in government institutions and employees from the private sector.

> *…sometimes when you can find yourself in public, like public hospitals and clinics…they treat us very bad. I was going for antenatal clinic, so I do not know, there is a lady who lost her ID…So she started to scream, speaking in Zulu saying I know that the people who stole my ID are Congolese, Nigerian and Zimbabwean, they want to come and marry me by force so they can take my identity. This happened after that event [xenophobic violence] meaning that thing [xenophobia] is still continuing…You always think about it [xenophobic violence] when you find yourself in those public spaces, like public service departments, when maybe you need attention. So sometimes you are right but you cannot speak because if you speak, they will start to call you names* (Participant #69, Refugee woman from the Democratic Republic of the Congo)

> *A colleague came and said I didn't want you to get this job. My fellow South African was supposed to get this job. You foreigners are taking our jobs* (Participant #20, Migrant woman from Zambia)

From these comments, it is evident that the women perceived xenophobic violence not only in the violent actions of a few, but also in society at large.

Sub-theme 6.3: Social integration hampered by continued xenophobic sentiments. This exclusion is also evident in the social interactions with South Africans. There is a perception among participants that it is difficult to form social networks with South Africans, not only because of the xenophobic violence that took place, but also because of continuing xenophobic attitudes:

> *Yes there are some good people out there but there are few, and you will not know who is good and who is not. You have to get close to them. Getting close to*

them is another problem. I do not know if I have that heart anymore like before (Participant #100, Refugee woman from the Democratic Republic of the Congo)

Participants described strained attitudes between her neighbour and herself:

…it has been a problem to live with that woman [South African]…even when you meet her like she is going out and you are coming in and you greet her, she won't respond like she likes you. She shows you that she does not like you (Participant #100, Refugee woman from the Democratic Republic of the Congo)

While there is acknowledgement that not all people are xenophobic, the women expressed caution in the relationships they form with others. Living with others who are explicit in their xenophobic attitude also creates isolation and lack of intergration between neighbours.

Sub-theme 6.4: Xenophobic sentiments are fostered through language. Language is described by the participants as an identifier or in some instances, is used as a tool for excluding them from social situations:

If they [people from the township] ask you one question in their language maybe in Zulu or such you don't understand and you say "I speak English", instead they will know that you are a foreigner so, they will maybe, do something back to you (Participant #1, Migrant woman from Zambia)

If they just hear you speaking to them in English, they speak to you in Zulu, they just identify that you're a foreigner…if I have just came to this country, I will not automatically know the languages. I will like to know them…The same thing can happen to South Africans when they go to my country. When they go to my country they won't know my local languages except English, but some people don't consider that. They want you on the first day to start speaking the local language (Participant #20, Migrant woman from Zambia)

Sub-theme 6.5: Feeling trapped in South Africa. Participants spoke of their longing to return back to their home countries, but that it was not a viable option:

We cannot go back home. That is another problem. At least if you know that where I come from there's a life. But there is no life back home. There is no life back home (Participant #100, Refugee woman from the Democratic Republic of the Congo)

> *I was asking God to go and die in our country but when you think there is nothing there. They burnt the house. Everything is…there is nothing left* (Participant #103, Refugee woman from the Democratic Republic of the Congo)

From these comments, it appeared as though the women felt that leaving South Africa is the only option they have. However, this is not an option they can pursue because the situations in their home countries do not allow them to return.

Sub-theme 6.6: Diminished sense of freedom and mobility. Participants focused on their mobility and the freedom to move around the city. The sense of freedom was linked to the ability to move in townships and the use of public transport.

> *I am scared to take the train…I feel free in the city here not in the township…even the taxi drivers, if they don't [speak] English they just shout at you, it feels stressful* (Participant #1, Migrant woman from Zambia)

> *I'm not free here in South Africa but there is nothing I can do* (Participant #103, Refugee woman from Burundi)

There was a perceived hopelessness attached to dimished freedom the women had as a result of continued xenophobic violence and attitudes.

Sub-theme 6.7: Shifting gender roles. Participants described themselves as the sole income earners in their families, taking on the role as head of the households because husbands have left their families, either to return to their home country or due to separation/divorce.

> *I'm a business woman…for now like for my business, for now it's difficult. I'm struggling to pay even school fees for my baby. I can manage to eat, you know you can't sleep without food* (Participant #2, Refugee woman from the Democratic Republic of the Congo)

> *I am still operating that small shop, but for him [husband], if somebody calls him, then he just go and fix that…so that's what he's doing for now* (Participant #21, Migrant woman from Zambia)

Their reasons for returning were not shared with the researcher and therefore cannot be attributed to the xenophobic violence. Rather, their current situation is demonstrated in the aftermath of xenophobic violence. Shifting gender roles were intertwined with the struggles of daily life and survival, with stories shaped around resource constraints.

Theme 7: Experiences of growth after exposure to xenophobic violence. The participants described their personal philosophy and how they are a source of support to each other in the aftermath of the xenophobic violence. The spiritual element featured prominently in participants' descriptions of coping mechanisms during and in the aftermath of the xenophobic violence.

> *You know these things which are happening, if you trust in God and every day you pray to God, one day God will answer your prayers. So the only thing I can say is trust in God and have faith in him* (Participant #18, Migrant woman from Zambia)

> *Like if you are here today, it's God. Like [participant] is my sister. We are not from the same family nut I am taking her as my sister. If I have problems I can tell [participant] maybe she might be able to help she is going to encourage me…She would say don't stress. God is going to help* (Participant #12, Refugee woman from the Democratic Republic of Congo)

Participant #2 expresses her sense of personal strength she gained after the xenophobic violence and how she can encourage others:

> *Okay for now, I'm strong because I've got experience about this. So I'm strong. I can encourage other people than before it happened. For now it happened, that's why I'm strong* (Participant #2, Refugee woman from the Democratic Republic of the Congo)

But remains cautious in the trust relationships she forms with others:

> *…I can't even trust. Can I think before it happened? Yes. I can trust but little* (Participant #2, Refugee woman from the Democratic Republic of the Congo)

Theme 8: Living in South Africa pre-May 2008. There were shared sentiments about life before the xenophobic violence took place: participants shared stories of a "good" life. This notion of a "good" life was often linked to economic participation, the ability to move freely as well as to socially integrating with South African citizens. In sharing their life before the xenophobic violence, the participants also spoke about their reasons for coming to South Africa (and is presented as the first sub-theme within this theme).

Sub-theme 8.1: Reasons for coming to South Africa. For refugee women, these reasons were attributed to situations of war (human-caused disaster) in their home countries.

> *…I came in South Africa because of fights in Congo. That is why I came here with my family but another family passed away because of fights in Congo…maybe in this country [South Africa] my life and family can change* (Participant #2, Refugee woman from Congo)

For migrant women, the reasons for coming to South Africa were largely for economic opportunities:

> *So after struggling, being employed in short term contracts and then I would stay without a job…In short I came to decide to say let me go and try South Africa, since here the industry [mechanical fitting] is still alive. So that is when I came here* (Participant #21, Migrant woman from Zambia)

The reasons are not always as clear cut as indicated above. In one instance, a participant described her family dispute as the reason for her coming to South Africa:

> *Before I came to South Africa I had difficulties there where I come from in Zambia. I had problems, I was married to my husband and the family killed him. After killing him they wanted me to marry one of their other sons. I refused and when I refused, they threaten to take all the stuff because I didn't want to get married again* (Participant #14, Migrant woman from Zambia)

Sub-theme 8.2: Sense of sharing and community. There was a sense of shared cohesion expressed in the stories of some of the participants. This cohesion was linked to the ability to move around freely within the township and that people were more welcoming before the xenophobic violence occurred.

> *Before the xenophobic attack, life was good eh, were going everywhere want to go, we were going even in the township freely without any fear. My husband was working so, we were sharing, we were going and we were with South Africans, all kinds of South Africans in the suburbs and in the townships it was great* (Participant #1, Migrant woman from Zambia)

> *How was life then? It was better because like people used to treat me differently, like people were friendlier, they were nicer…they welcomed me…we were all united as one at first but ever since the xenophobia just happened everything just broke* (Participant #22, Refugee woman from Zimbabwe)

Despite the participants reporting an easy transition into settlement, rumours of xenophobia were evident in one woman's narrative. She explains about hearing about xenophobia from others before the xenophobic attacks of May 2008 took place:

> *So…we did kind of hear people talking about the xenophobia thing. That it happened even before [2008 attacks]…I didn't take it very serious, I just thought maybe it's something that happened once and it might not repeat itself* (Participant #5, Refugee woman from the Democratic Republic of the Congo)

Merging the quantitative and qualitative findings

As suggested by Creswell and Plano Clark (2011), the results were merged in tables (Table 18 and Table 19). Part I represents the pathological response from exposure to xenophobic violence and Part II is dedicated to adaptive response from exposure to xenophobic violence. These are further divided into columns showing the quantitative results from the SASRQ for DSM-5, a selection of the qualitative responses from the SASRQ open-ended responses and the semi-structured interviews.

Both strands show that the women showed physiological and psychological symptoms as well as growth response after exposure to xenophobic violence. The exposure to xenophobic violence was experienced in a multitude of ways – illustrated in both the quantitative results and qualitative responses. When the women indicated that they witnessed the xenophobic violence happen to others, the qualitative responses provide an expression to this numeric result through the descriptions women gave of what they saw during the xenophobic violence. Thus, not only do the qualitative responses complement the quantitative findings through convergence of these discrete findings, they also provide an expanded perspective of the women's experiences of xenophobic violence.

The expanded perspective revealed that some of the qualitative findings were conceptually different to the quantitative findings, highlighting that merging of the quantitative and qualitative findings is not always possible. This was particularly evident in the qualitative themes and sub-themes, especially themes related to the period before and after the xenophobic violence took place. For example, the qualitative theme 8, Living in South Africa (pre-May 2008) cannot be merged with the quantitative findings. Similarly, the dimensions do not incorporate a relevant category to capture the sub-theme of living in South Africa (pre-May 2008), confirming that the sub-theme adds an additional aspect to the findings. The following section presents the merging of the quantitative and qualitative findings, starting with the pathological response/ outcome.

Part I – Pathological responses.

The following discussion centres on the merged results related to the pathological response/ outcome. Each heading demonstrates the items and themes used in Table 18, depicting the merging of the quantitative and qualitative findings related to pathological responses. The dimensions were taken from the mixed methods research question and function as cross cutting categories through the quantitative and qualitative results to emphasise where the findings converge or diverge.

Exposure to xenophobic violence: SASRQ item 1 (Level of exposure), SASRQ open-ended response theme 1, and semi-structured response theme 1. All participants self-reported that they were exposed to xenophobic violence in various ways. Some participants self-reported multiple exposures to xenophobic violence. This is congruent with the qualitative responses from both the SASRQ open-ended question and the semi-structured interview, where participants spoke vividly about being physically harmed by perpetrators of xenophobic violence (for example, being beaten); and/or that they had family members or close friends who were harmed; and/or witnessing attacks on others.

Psychological responses: SASRQ subscales (Intrusion, Negative mood, Dissociative, Avoidance, Arousal, and Impairment), SASRQ open-ended response theme 4, and semi-structured response theme 2. Participants self-reported moderate to high symptom response, as indicated in the subscales' results. This was aligned with the responses in the open-ended responses as well as the semi-structured interviews responses where the participants described diverse symptoms after experiencing the xenophobic violence, such as being traumatised, confused, stressed, and being emotional. Table 18 provides statistical results as well as quotes from the themes illustrating the women's depiction of the psychological responses they experienced during and after the xenophobic violence.

Behavioural and/or physical responses: SASRQ Arousal symptoms (individual items in subscale); SASRQ open ended response theme 1 and semi-structured response theme 2. Participants reported the presence of high levels of arousal symptoms. This was aligned with both sources of qualitative responses where participants indicated behavioural outcomes such as sleeplessness, anxiety and physiological outcomes, such as high blood pressure, and other stress-related physiological conditions. The quantitative findings and the qualitative responses are represented in Table 18.

Fear of repeated xenophobic violence: SASRQ open-ended response theme 5; semi-structured response theme 6. The fear of repeated xenophobic violence was a key response in the findings and its perceived severity is echoed throughout the qualitative findings. In both sources of qualitative responses, participants repeatedly expressed being fearful of the xenophobic violence happening again. Merging with the quantitative findings was not possible because the SASRQ assessed the period 30 days after the xenophobic violence and the women expressed their current, ongoing fears of repeated xenophobic violence in their qualitative responses.

Table 18

Merging the quantitative and qualitative findings on pathological responses

Part I: Pathological responses			
Dimensions	Quantitative results SASRQ for DSM-5	Qualitative results	
		SASRQ for DSM-5 open ended responses	Semi-structured interviews
Exposure to xenophobic violence	SASRQ item 1 (Level of exposure) Directly experiencing the xenophobic violence (25.5%) Witnessed the attacks on others (4.3%) Learnt that the xenophobic violence had happened to a family member or friend (24.5%) Exposed to xenophobic violence in multiple ways (23.4%)	SASRQ open-ended response theme 1 I was attacked when I was from school with my friends (Participant #25, Refugee woman from Democratic Republic of the Congo) It was around past 6pm. I just can [hear] people singing makwerekwere hamba. Know the mean. I just seat in my room. Suddenly they break my door beat me and ask me to leave without nothing. I was shocked and run to the Cleveland police (Participant #98, Refugee woman from the Democratic Republic of the Congo)	Semi-structured response theme 1 There were stones and things and they wanted to kill, to kill someone and I saw the blood, blood at every place (Participant #3, Refugee woman from the Democratic Republic of the Congo) They wanted to kill me because they said my language doesn't sound South African. I know a bit of Zulu but they said I am not South Africa because my language is not proper…I ran away fast (Participant #14, Migrant from Zambia) They came with stones and started throwing at us. I had a visitor. They beat him and they took off his clothes and took his bag. He left there naked (Participant #71, Refugee from the Democratic Republic of the Congo)
Psychological	SASRQ 6 subscales	SASRQ open-ended response theme 4	Semi-structured response theme 2

responses	Intrusion symptoms: median 26.0 (IQR = 9.00) Negative mood symptoms: median 11.0 (IQR = 6.00) Dissociative symptoms: median 28.0 (IQR = 10.00) Avoidance symptoms: median 15.0 (IQR = 6.00) Arousal symptoms: median 17.5 (IQR = 7.00) Impairment symptoms: median 4.93 (IQR = 8.00)	I felt bad, confused, stressed and betrayed by all those events. I was scared to live in this country because of those events but I had no choice (Participant #37, Refugee woman from the Democratic Republic of the Congo) I was emotional for some time, everything seems wrong. I remember wanting to go back to my country after the terrifying attacks because I was feeling insecure (Participant #57, Refugee woman from the Democratic Republic of the Congo)	It was so painful because I did not expect that…That event [xenophobic violence] shocked me a lot…I saw it myself in the street (Participant #69, Refugee woman from the Democratic Republic of the Congo) You know what I was disturbed, when you are staying somewhere you have to be free but here in South Africa I was very disturbed, I couldn't go out…I would just sit in the house (Participant #18, Migrant woman from Zambia)
Behavioural and/or physiological responses	SASRQ Arousal symptoms (individual items in subscale) Difficulty falling asleep; irritable or outbursts of anger; hypervigilance; difficulty concentrating; and/or startled response. The median of arousal symptoms was 17.5 (IQR = 4.00).	SASRQ open-ended response theme 1 Anger, revenge, the desire to go as far as possible from South Africa and those xenophobic people, especially blacks with afro-phobia (Participant #27, Refugee woman from the Democratic Republic of the Congo).	Semi-structured response theme 2 I couldn't sleep for three days. I wasn't sleeping I was just sitting like this I was thinking maybe if I sleep they will enter. So I wasn't sleeping for three days. I would sleep maybe for one hour and then you scream like maybe they are there (Participant #16, Refugee woman from the Democratic Republic of the Congo)
Fear of repeated xenophobic violence	N/A	SASRQ open-ended response theme 5	Semi-structured response theme 6

		It was as though the whole attack had just taken a break and will start at any time I'm in the street (Participant #5, Refugee woman from the Democratic Republic of the Congo) I was still insecure and afraid that it might happen again (Participant #55, Refugee woman from the Democratic Republic of the Congo) I'm not fine. I was afraid all the time (Participant #2, Refugee woman from the Democratic Republic of the Congo) It was scary walking or going out thinking that it is still happening. When I hear a knock at the door I got scared to open thinking they are now entering to ask we are foreigners (Participant #20, Migrant woman from Zambia)	It does because it reminds me of maybe it's [xenophobic violence] going to start or I think maybe it's another way of starting (Participant #11, Refugee woman from Zimbabwe) Even if I'm walking in the streets I don't trust. I'm just scared, maybe that thing is going to happen again (Participant #18, Refugee woman from Zimbabwe) I feel like when I walk I'm not secure, even today I don't feel okay (Participant #29, Refugee woman from the Democratic Republic of the Congo) …I would sleep maybe for one hour and then you scream like maybe they are there (Participant #16, Refugee woman from the Democratic Republic of the Congo)

Part II: Adaptive responses

Table 19 shows the merging of the quantitative and qualitative findings related to the adaptive response. There were no reports of growth in the SASRQ II open-ended questionnaires hence its exclusion from the merging. The qualitative findings in the merge refer only to the semi-structured responses with cross cutting dimensions in the adaptive response taken from the posttraumatic growth framework (Tedeschi & Calhoun, 1995).

Changed perception of self: strength and new possibilities: PTGI Factor II and Factor III); semi-structured response theme 7. Participants reported personal strength after experiencing xenophobic violence which may be a source of encouragement to others. Factors II and III had median scores of 15 (IQR 11-20) and 14 (IQR 9 – 17) respectively. These scores indicated high self-reported growth in new possibilities and personal strength, expressed in qualitative responses as stories of employment and looking to a future of new opportunities. Despite this, there was also a focus on the daily survival of refugee and migrant women, on finding employment to be able to survive, particularly highlighting the dynamics in shifting gender roles where the women take on the responsibility of heading the household.

Relating to others: PTGI Factor I and semi-structured response theme 7. Participants self reported high growth in relating to others, with a median score of 23 (IQR 14-27). The women acknowledged the role that social networks and support played in their lives in their qualitative responses. Similarly, the women acknowledged their role in encouraging and helping others. Participants acknowledged that not all South Africans were xenophobic and that despite the attacks they were able to trust people to a certain extent.

Changed philosophy of life: priorities, appreciation and spirituality: PTGI Factor IV and Factor V; semi-structured theme 7. The women self-reported elevated growth in spiritual change and appreciation of life, with median scores of 7 (IQR 5-10) and 11 (IQR 8-13) respectively. Spiritual faith was the focal point of many stories. The women expressed the view that their belief system was the reason they were not harmed during the xenophobic violence. And for many, their continued survival is related to their belief systems. Participants' appreciation of life was expressed through narratives of gratitude of being alive and their ability to care for their families.

Table 19

Merging the quantitative and qualitative findings on adaptive responses

Part II - Adaptive responses		
Dimensions	Quantitative results PTGI	Qualitative results Semi-structured interview qualitative responses
Changed perception of self: strength and new possibilities	Factor II (New possibilities): median 15.0 (IQR 11-20) Factor III (Personal strength): 14.0 (IQR 9-17)	Semi-strcutured response theme 7 We're getting past everything, we're fine…let's think of the future, one day we're going to work for the country… (Participant #5, Refugee woman from the Democratic Republic of the Congo) Okay for now, I'm strong because I've got experience about this. So I'm strong. I can encourage other people than before it happened. For now it happened, that's why I'm strong (Participant #2, Refugee woman from the Democratic Republic of the Congo)
Relating to others	Factor I (Relating to others): median 23.0 (IQR 14-27)	Semi-strcutured response theme 7 …I can't even trust. Can I think before it happened? Yes. I can trust but little (Participant #2, Refugee woman from the Democratic Republic of the Congo) Like if you are here today, it's God. Like [participant] is my sister. We are not from the same family hut I am taking her as my sister. If I have problems I can tell [participant] maybe she might be able to help she is going to encourage me…She would say don't stress. God is going to help (Participant #12, Refugee woman from the Democratic Republic of Congo)
Changed philosophy	Factor IV (Spiritual change): median	Semi-strcutured response theme 7

of life: priorities, appreciation, and spirituality	7.00 (IQR 5-10)	Yes I can give encouragement, especially if you are a woman of God. You pray to God to protect you. You can give encouragement even to your friend, even to your neighbour… (Participant #2, Refugee woman from the Democratic Republic of the Congo) You know these things which are happening, if you trust in God and every day you pray to God, one day God will answer your prayers. So the only thing I can say is trust in God and have faith in him (Participant #18, Migrant woman from Zambia) You know what we believe in God like, because we believe in God…we trust in God that he has protected us, he has been with us, and he has helped us through this hard difficult time like because it wasn't easy…we were scared for our lives (Participant #22, Migrant woman from Zambia)
	Factor V (Appreciation of life): median 11.0 (IQR 8-13)	Semi-structured response theme 7 I say thank you to this woman…She said she would give me a job to clean the salon (Participant #103, Refugee woman from Burundi)

Conclusion

In this chapter, the quantitative results of the pathological and adaptive outcomes were presented to show the acute stress disorder symptoms and posttraumatic growth in refugee and migrant women after exposure to xenophobic violence. The qualitative responses presented in this chapter, showed the shared experiences of refugee and migrant women from exposure to xenophobic violence. After merging the quantitative and qualitative findings, there was convergence in the findings (discussed in greater detail in Chapter 5). Some of the qualitative findings could not be merged because the quantitative measures did not cover the qualitative responses presented through the qualitative narratives of the participants.

Chapter 5: Discussion

The mental health needs of vulnerable populations are often neglected in the aftermath of disasters. This poses challenges for their long-term mental health as well as appropriate interventions. Thus, there is a need to establish the mental health outcomes of those affected by disasters, particularly when disasters occur in the resettlement period, as was the case with the xenophobic violence in May 2008 in South Africa.

The purpose of this convergent parallel mixed methods study was to determine the mental health outcomes and experiences of refugee and migrant women from exposure to xenophobic violence. There is little evidence in the literature on the impact of xenophobic violence on the mental health outcomes within the South African context. Xenophobic violence has become and continues to be a burgeoning issue in South Africa (Hall, 2015), with the potential for mental health challenges for those affected. In light of this, the current study sought to investigate refugee and migrant women's mental health outcomes, specifically the presence of ASD symptoms and PTG, using quantitative measuring instruments and exploring the women's experiences of xenophobic violence, gathered from semi-structured interviews and open-ended responses in the SASRQ II for DSM-5 (Cardeña et al., 2014).

Lazarus and Folkman's (1984) transactional model of stress and coping was used to frame this study of mental health outcomes from exposure to xenophobic violence. The experiences of xenophobic violence were framed by phenomenology, which focuses on the phenomena as it is shared by those exposed to xenophobic violence. It is suggested in the literature that qualitative research is useful in seeking the truth of the phenomena through the subjective experiences of the individual (Braun & Clarke, 2013). In the current study, these qualitative responses enhanced the study by providing valuable information on the participant's experiences not only of exposure to the xenophobic violence, but a glimpse of their lives before and in its aftermath.The disaster mental health perspective (Halpern & Tramontin, 2007) is all-encompassing to the current investigation of mental health outcomes and experiences of xenophobic violence. Xenophobic violence was positioned as a human-caused disaster, within the disaster mental health perspective (Halpern & Tramontin, 2007), giving prominence to an event that may be considered unprecedented and traumatic. Persistent ruminations after a disaster are the hallmark for both ASD symptoms and a PTG response in survivors, thus, the mental health outcomes under investigation were limited to acute stress disorder (ASD) symptoms and posttraumatic growth (PTG).

This study highlighted that xenophobic violence does not take place in a vacuum and that exposure to xenophobic violence had far-reaching implications beyond mental health outcomes. This was evident from pre-and post-exposure factors expressed by the participants' of their experiences of xenophobic violence. Participants described how they came to settle in South Africa through their accounts of war, political upheaval and limited economic opportunities in their home countries, as well as resettlement issues experienced in South Africa.

This chapter provides a discussion around the four research questions. Firstly, the converged findings are presented, followed by a discussion on the discrete key findings from the quantitative and qualitative analysis. The key findings that were conceptually different and could not be merged are also included. This chapter is organised into three sections: living in South Africa pre-May 2008; mental health outcomes and experiences of the 2008 xenophobic violence; and living in the aftermath of xenophobic violence.

Living in South Africa pre-May 2008

The women remarked that before the xenophobic violence occurred, there was a sense of integration with the broader community. This sentiment may be linked to the notion of a good life (as discussed above). Participants shared the notion of "living a good life" in South Africa. These findings differed from the study conducted by Vromans and others in South Africa where study participants recounted the "…ongoing patterns of assaults occurring in a menacing context of chaos.." before the May 2008 attacks occurred (Vromans et al., 2011). These differences may be attributed to the sample participants, as the Vromans and others study was limited to men and the current study was limited to women. Locality may be another reason that the findings differed. The Vromans and others study was conducted in the Western Cape, while the current study was conducted in one city, i.e. Johannesburg (Gauteng Province).

One particular finding of the current study that was similar to Vromans, Schweitzer, Knoetze and Kagee (2011) study was the notion of rumours about xenophobic violence before the attacks happened. This aspect was clearly recounted in the participants' qualitative responses. While the two studies are not directly comparable because of methodological differences, what is clear is that the women in the current study and the men in the Vroman study differed in their experiences of living in South Africa before the xenophobic violence in May 2008 took place. The xenophobic violence resulted in the disruption of social relationships formed with South Africans and there was a hopelessness expressed that these relationships may not be mended. This may be linked back to the prevailing fear of repeated xenophobic violence.

There was a clear distinction between the reasons for coming to South Africa between refugee and migrant women. For refugees, this was evident through their descriptions of war and political upheaval experienced in their home country. For migrant women, this was due to lack of economic opportunities. The distinction made supports the literature distinction between refugees and migrants (Dalton-Greyling, 2008; Kok, 1999; United Nations High Commissioner for Refugees (UNHCR), 2006).

Mental health outcomes and experiences of xenophobic violence

Exposure was reported as being direct (e.g. attempted rape) or the physical harm of a family member or close friend during the attacks. Other participants expressed the loss of or missing family members. This exposure was perceived as life threatening to those affected and their families. The findings show that exposure may cause both physical and psychological harm, as indicated by the qualitative responses of refugee and migrant women in this study. It appeared from the converged findings that the exposure to xenophobic violence led to feelings of dehumanisation and a sense of betrayal by other human beings. Refugee women were reminded of their previous exposure to disaster from exposure to xenophobic violence and participants drew comparisons between the xenophobic violence and the violence experienced in the home countries. One such example given was the burning of people during the xenophobic violence, which also reminded participants of the burning of people in their home countries.

It is evident from the literature that disasters cause loss of property, disruption and displacement (Halpern & Tramontin, 2007). This is supported by the current study and the participants' descriptions of the damage to their property and the stealing of their personal belongings. Exposure to the xenophobic violence also results in displacement and disruption: participants were separated from their families and forcibly removed from their homes. These quantitative and qualitative findings concur with the literature of the pathological (Farfel et al., 2008; Frankenberg et al., 2008; Rubin et al., 2012) and adaptive (Calhoun et al., 2010; Moore et al., 2011) responses from exposure to disaster and thus, further justify the classification of xenophobic violence as a human-caused disaster.

ASD symptoms. Evidence in this study suggested that moderate levels of ASD – total symptoms were present in the participants exposed to xenophobic violence. Although these findings were not statistically significant in the current study, they are nonetheless meaningful as they are supported in the literature such as a study using the SASRQ (first version) conducted on the September 11 2001 attacks in the U.S.A. (Cardeña, Dennis, Winkel, & Skitka, 2005). The Cardeña and others study (2005)

highlighted that being female and immigrant were predictors of elevated distress and in the case of the current study, women showed moderate levels of ASD-total symptoms, with scores on the individual symptoms of intrusion and negative mood particularly higher than others. The SASRQ I and II determines the presence of ASD symptoms retrospectively. In the case of the current study, the assessment was conducted more than six years since the xenophobic violence occurred in May 2008, thus there may be an underreporting of symptoms due to the time that had lapsed.

The current study findings were in contrast to those from a study of age-concordant ASD in survivors of war in Lebanon, which found “lower subsyndromal ASD in young and middle-aged adults” (Cohen, 2008, p. 37). These findings may differ because of the methodological approaches used, despite ASD being an outcome of both studies and both samples affected by human-caused disaster.

There was a self-acknowledgement of psychological symptoms from exposure to xenophobic violence and these were captured in the women’s shared feelings of being “disturbed”, or “shocked”, or “scared”. Within individual subscales, elevated levels of intrusion symptoms were reported by the participants. These findings may be explained by the qualitative responses on the repeated reminders of the xenophobic violence and fearing that the event would happen again. The perceived sense of betrayal (expressed in the qualitative responses) may account for the elevated levels of intrusion, through the process of recurrent, repetitive, intrusive and uncontrollable thoughts. These findings corroborate the patterns of elevated intrusion symptoms found in survivors of a terrorist attack in Israel (Shalev, 1992).

There was a significant difference between the refugee and migrant women in impairment symptoms with refugee women experiencing greater impairment in functioning than migrant women from exposure to xenophobic violence. These results may have been influenced by the lower number of migrants who participated in the study. Impairment symptoms relate to one’s ability (or lack thereof) to function in areas of life, such as work, studies, or other activities; the ability (or lack thereof) to seek assistance from others; self-reflecting on behaviour and relationships with others (Cardeña et al., 2014). Pre-migration exposure to trauma may account for the differences between migrants and refugee women, with refugee women being exposed to war and political upheaval (as expressed in the qualitative responses). These differences may be indicative of complex PTSD. Furthermore, these findings support those highlighted in a study on the role pre-migration exposure to disaster play as predictors of post-migration pathological responses from exposure to trauma or disaster (Alexander, 2010).

Refugee and migrant women self-reported elevated arousal symptoms from exposure to xenophobic violence, with descriptions of being angry and wanting revenge for the harm done. Hypervigilance was a prominent response expressed by the women in the immediate aftermath but also appears to continue 6 years post-May 2008. This may be accounted for by the prevailing fear of repeated xenophobic violence. At the time of the current study, six years had passed since the xenophobic violence took place, yet the fear of the xenophobic violence recurring was a predominant feature of the experiences of xenophobic violence expressed by participants.

PTG. Moderate levels of posttraumatic growth were found in the current study, with refugee women experiencing slightly elevated growth in new possibilities than migrant women did after exposure to xenophobic violence. Although these findings were not statistically significant, the reported growth is indicative of the current lives of participants and may be as a result of the time that has passed since the xenophobic violence took place in May 2008. The moderate PTG response seen in this study was similar to mothers who survived Hurricane Katrina (Lowe et al., 2013). In studies with a similar sample, although conducted in Norway, Sarajevo, Bosnia and Herzegovina, the PTG response was higher (Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003; Teodorescu et al., 2012).

The growth in new possibilities in the quantitative findings were reported in conjunction with the struggles for survival after the xenophobic violence occurred (for e.g. lack of employment, inability to pay rent, school fees or food) expressed by participants in the qualitative responses. It is evident from some of the qualitative responses that these struggles were not experienced before the xenophobic violence occurred.In addition, these struggles were reported by the participants as continuing at the time the study was conducted. The emphasis placed by participants on the social bonds formed with others refugees and migrants, in addition to the strength their religious beliefs bring them may account for the moderate PTG response despite the harsh conditions many participants continue to live in.

The moderate level of growth found in the current study may be explained by the perceived threats of ongoing xenophobic violence expressed by participants in the qualitative responses. Primary and secondary appraisals are fused in a complex web of “coping options” and risk assessment during a threatening situation (Lazarus & Folkman, 1984, p. 35). Those affected by xenophobic violence may appraise a threatening situation, firstly as a perceived threat to life. During primary appraisal, the strain of the xenophobic violence may be appraised as too demanding and not having the ability to cope, in which case, a stress response may be highly likely.The imminent threat or

recurrence of xenophobic violence may further exacerbate the demand on resources, resulting in the inability to cope and the presence of ASD symptoms.

As indicated earlier, rumination may also explain the presence of the moderate PTG in the PTGI-total score in the current study. A person may attempt to understand what has happened to them and why it has happened and this cognitive engagement may encourage PTG (Calhoun & Tedeschi, 2014). However, persistent threats to safety or the indication that the event may re-occur may interfere with one's capacity for growth. Lazarus and Folkman (1984) proposed that a significant feature of prevailing threat is "anticipatory coping" (p.33). Lazarus and Folkman (1984) believed this awareness of threat provided survivors with a platform to plan for their future functioning, in addition to developing and enhancing coping strategies as a result of the awareness. It appears from the quantitative results, showing moderate PTG and the qualitative results, illustrating stories of growth, that the women in this study were able to develop coping strategies.

The social networks and support the women referred to were largely formed between other refugees and migrants. While the women acknowledged that not all South Africans were xenophobic, the expressed lack of trust after the attacks may hinder the women's ability to willingly form social bonds with others, leading to greater isolation from the broader community. Refugee and migrant women may be placed in an increasingly vulnerable position due to the limited access to supportive structures, particularly when having to deal with potential stress and trauma in the future.

Participants reported elevated spiritual change after exposure to xenophobic violence. In the qualitative responses, participants expressed spirituality as God or their belief system as playing a protective role during the xenophobic violence, which participants related to survival. These references to God and their belief system may be indicative of coping appraisals which promote a growth response. These findings on spirituality agreed with a study with survivors of a major traumatic event, which found that religious change towards increased spirituality or deeper beliefs in God was related to higher PTG (Calhoun et al., 2000).

The relationship between ASD symptoms and PTG. This study revealed moderate ASD symptoms and moderate PTG in participants after exposure to xenophobic violence. There was a statistically significant positive, linear relationship between ASD symptoms and PTG. A similar linear relationship was observed between peritraumatic distress and PTG, in a longitudinal study on PTSD, peritraumatic distress (PD) and PTG (Kunst, 2010). Kunst (2010) suggests that the reason for the differential results is that "distress experienced during or shortly after violence enables victims to experience

growth several years later", with the experience of growth dependent on the severity of the distress. The Peritraumatic Distress Inventory used in the Kunst study to assess peritraumatic distress, defines it as the emotional responses experienced during and immediately after a traumatic event (Brunet et al., 2001).

These findings are partly similar to a study which demonstrated "a moderate range of exposure or symptom severity may best promote growth" (McCaslin et al., 2009, p. 335). However, the current findings differed with the authors' findings that showed that the relationship between posttraumatic growth and peritraumatic dissociation and PTSD as leading to a curvilinear model (p.335) and not a linear model as the current study suggests. Peritraumatic dissociation is defined as occurring during or immediately after exposure to a traumatic event and involving "…disturbed awareness, impaired memory, or altered perceptions…" (McDonald et al., 2013, para.1). Dissociative symptoms are a key feature of ASD (and PTSD). Dissociative symptoms are a key feature of ASD (and PTSD). The current study found a moderate score for dissociative symptoms. Dissociative symptoms were also a statistically significant predictor of PTG. A study on resettled refugees in Norway showed a negative correlation between PTG and posttraumatic stress symptoms, such that increases in posttraumatic stress symptoms were associated with decreases in PTG (Teodorescu et al., 2012). The current study investigated ASD symptoms and while parallels can be drawn, it is not directly comparable with the Teodorescu and others study.

A possible explanation for the linear model in the current study may be the anticipatory appraisals participants experienced concerning fears of repeated xenophobic violence. These fears the persistent feelings of fear attached to a perceived threat of repeated xenophobic violence and may result in moderate posttraumatic growth. Repeat threats of xenophobic violence are a daily concern for refugees and migrants (Misago et al., 2010). Since the May 2008 attacks, two other major incidents of xenophobic violence occurred during 2013 and 2015. Repeated threats may contribute to prolonged and poor health outcomes (Calhoun & Tedeschi, 2012; Holgersen, Klöckner, Boe, Weisaeth, & Holen, 2011) and are associated with intense rumination (Cobb et al., 2006, p. 896).

This study showed all six ASD symptom subscales are predictors of PTG, suggesting that with the passage of time, PTG may increase or stabilise (Teodorescu et al., 2012). The caveat here is that this may only be possible in situations where ongoing threats are not a certainty. However, due to the most recent xenophobic attacks that took place in 2015, there is a likelihood that PTG may not stabilise. Instead, participants may be re-traumatised by the most recent attacks.

Living in the aftermath of xenophobic violence

The mixed methods approach used in this study highlighted that exposure to xenophobic violence had far-reaching implications (beyond mental health outcomes). There were issues highlighted by refugee and migrant women, with the potential to contribute to longer-term mental health challenges. Loue and Sajatovic (2012) found that the post-migration milieu, particularly a context characterised by stressful conditions, is associated with poor mental health outcomes. These stressful conditions coupled with ongoing threats of xenophobic violence may further exacerbate poor mental health outcomes.

Participants reported that xenophobic violence is but one of several challenges experienced while living in South Africa. Set against the backdrop of the xenophobic violence, the other barriers experienced are: exclusion from social participation in the South African community; limited (if any) participation in the economy; hindered access to health care and legal documentation. These barriers may contribute to shattered appraisals, hampering the ability of refugees and migrants to live secure and productive lives. These shattered appraisals may also explain the moderate levels of PTG in the quantitative and qualitative findings.These findings echoed the study (set in the United Kingdom and the United States of America, focused on Somali refugees), which found similar barriers, suggesting that these may be a reflection of “national policies, political and social attitudes to refugees and asylum seekers, entitlements to benefits and employment, and the ability to establish ties to communities and places – to belong” (Warfa et al., 2012).

In the current study, language – particularly English - was perceived as divisive, rather than integrating. Participants expressed that speaking English in public often meant that they were identified as foreign, making them targets for perpetrator(s) of xenophobic violence and xenophobia. In the Warfa and others study (2012), which found that Somali refugees, particularly those with professional skills and a better command of the English language were more likely to “take control of their lives”, such that English speaking ability served an integration purpose (Warfa et al., 2012). The different findings in the current study and the Warfa and others study (2012) may be accounted for by the country context: in the U.K., the national language is English and, therefore, learning English would allow for better integration with the larger community who are predominantly English speaking. In South Africa, English is one of 11 languages spoken. Thus, English speaking ability may serve to divide refugee and migrant women from the larger community rather than integrate them.

The ability to form bonds with South Africans was limited for participants because of continued xenophobic sentiments and fear of repeated xenophobic violence. There is a sense of isolation and feelings of hopelessness that is expressed by participants. These responses are similar to those in Vromans and others study, where participants spoke of feeling lonely and hopeless and not knowing who to turn to for support (Vromans et al., 2011).

On the matter of returning to their home countries, there appears to be a catch-22 feeling that is shared among the participants. This is evident in the participants (refugees) expressing feelings of being trapped between the violence they experienced during the xenophobic attacks in South Africa and returning to home countries that have been ravaged by war. Migrants expressed similar feelings; however these feelings were related to returning to limited or no economic opportunities in their home countries.

The findings of this study indicated that refugee and migrant women exposed to xenophobic violence in May 2008 self-reported ASD symptoms and PTG. An increase in ASD symptoms is associated with an increase in PTG. These findings answered the quantitative research questions 1, 2 and 3. The qualitative findings illustrated that refugee and migrant women's experiences of xenophobic violence as physical and psychological, with xenophobia permeating social, economic and healthcare spheres of life. These experiences are complex for both refugee and migrant women and expand beyond the experience of xenophobic violence itself. These findings answered qualitative research question 4. The merging of the quantitative and qualitative findings showed the convergence of pathological and adaptive outcomes as experienced by refugee and migrant women and answered the mixed methods research question 5.

Conclusion

Xenophobic violence has the potential to cause physiological/behavioural, psychological responses in refugee and migrant women exposed to it. Moderate levels of ASD symptoms and PTG were found in refugee and migrant women exposed to xenophobic violence, with a statistically significant relationship between ASD symptoms and PTG. The current study, through participant narratives, showed that exposure to xenophobic violence may be experienced as physical harm or as a negative attitude. As with other human-caused disasters, xenophobic violence has the potential to cause the destruction of property, displacement and disruption to family networks of those affected by it. Continued threats of xenophobic violence and the prevailing fear of repeated xenophobic violence are a major concern for refugee and migrant women living in South Africa. Although a major concern, continued threats are not the only challenge

experienced by refugee and migrant women in the aftermath of the May 2008 attacks. Refugee and migrant women report xenophobic attitudes in other spheres of civil services and society, which may lead to exclusion from those services and the broader community.

Chapter 6: Limitations and Recommendations

Xenophobic violence is a multi-layered and complex phenomenon rooted in socio-political discourses, with far-reaching consequences for those affected by it. In light of the 2015 xenophobic attacks in South Africa, it appears to be a continuous threat to the physical and mental health of refugees and migrants living in South Africa. The disaster discourse does not take into account the ever-present threat associated with xenophobic violence, or even as xenophobic violence classified as a human-caused disaster. A disaster classification may be useful because of those complexities surrounding the socio-political roots of xenophobic violence and the ever-present threat it poses to refugees and migrants living in South Africa. While there has been a growing body of knowledge regarding the mental health outcomes of refugees and migrants focused on the pre-migration trauma or post-migration challenges, there is little evidence in the South African context of mental health outcomes from exposure to xenophobic violence.

Recent studies have raised the importance of screening for pathological and adaptive symptoms after human-caused disasters (Brewin et al., 2010; Piwowarczyk et al., 2015). The current study is to date one of the first investigations into exposure to human-caused disaster using a mixed methods approach with a focus on exposure to human-caused disasters in the resettlement period. Refugee and migrant women in this study showed moderate levels of ASD symptoms and PTG, with the convergence of findings seen between the ASD symptoms and the experiences of xenophobic violence shared by the participants. The same convergence in findings was seen between PTG and the participants' experiences of xenophobic violence.

Studies such as the current one reveal that mental health outcomes after human-caused disaster are the tip of the iceberg and there is a need for a greater focus on the post-migration experiences that occur in the resettlement period, particularly when challenges such as xenophobic violence exist. Optimal mental health outcomes are linked to post-migration experiences (Davis & Davis, 2006) thus highlighting the need to provide a safe and secure environment for refugees and migrants in their host countries. While the passage of time allows for PTG, this cannot be further realised or sustained in the light of continued threats to life, destruction of property, displacement and disruption. The constant exposure to xenophobic violence and its consequences, i.e. physical and psychological harm; coupled with losses at various levels, may place further strain on an individual's capacity for growth (Zakour, 2012). Recovery and an individual's capacity for PTG may be severely hampered by damaged social networks and resource depletion (Zakour, 2012).

Limitations. There were a few limitations to this study involving the sample, sampling method and the geographic location. This study takes place six years after the xenophobic violence took place. Memory recall is not infallible, particularly when it involves the psychological or emotional symptoms experienced. However, memory recall for the event itself is much clearer. Survivors may choose not to think about the traumatic events over extended time, but this does not mean that they have developed amnesia or that it influences accuracy (McNally, 2003). This study acknowledged the limitations in the ability of participants to recall psychological symptoms of the xenophobic violence and may have hindered their ability to complete the questionnaire or recall psychological responses associated with their experiences of xenophobic violence during the semi-structured interview with complete accuracy. This was beyond the researcher's control and for studies into mental health outcomes after exposure to disaster may be a challenge to overcome. This is particular to screening for ASD symptoms and these challenges are largely due to the chaos and ever-present threat in the immediate period following a disaster (within 30 days).

The scope of the study was limited to refugee and migrant women living in Johannesburg, South Africa. Thus, the experiences of refugee and migrant women in other parts of South Africa may be different to those in Johannesburg. The findings may not be generalised to the whole population of refugee and migrant women living in South Africa. This limitation was beyond the researcher's control as the project had a small budget, thus conducting research beyond Johannesburg was not feasible.

The purposive sampling method used in this study is also a limitation. The recruitment of refugee and migrant women was conducted through the organisations in Johannesburg and their outcomes and experiences may not be representative of refugee and migrant women who do not access the services provided by these organisations. A study including refugee and migrant women who do not access the services of the organisations may be useful in providing a more comprehensive picture of mental health outcomes after exposure to xenophobic violence.

The unreliable statistics of refugee and migrant population numbers in South Africa has a direct influence on the sample size calculation. This was similar to the challenge experienced in Warfa and others study on refugee and migrants' experiences (Warfa et al., 2012). In order to mitigate this limitation as best as possible, the sample size in the current study was calculated according to statistical rules applied in situations where the population size numbers are inaccurate, from the sample size for proportions calculated from confidence intervals (Krämer et al., 2011; Peacock & Peacock, 2011; Rumsey, 2011).

Recommendations. Special attention needs to be given to refugee and migrant women in the aftermath of xenophobic violence due to their heightened vulnerability to violence (Sigsworth et al., 2008) and poor mental health outcomes (Enarson et al., 2007). In the current study, this need is highlighted by the ASD symptoms identified, coupled with the far-reaching implications xenophobic violence has (beyond mental health outcomes).

Although the current study sample did not consist of men, their needs cannot be overlooked. The Vromans and others study (2011) highlights that the needs of men are similar to those of women.The focus on programmes that address social, economic and health barriers identified in this study, is important when developing solutions to these challenges faced by refugees and migrant women (and men). Mental health programmes in the resettlement period should have a strong focus on addressing previous exposure to trauma, as is the case with refugees and their previous exposure to human-caused disaster. There needs to be a focus on exposure to disaster and other barriers that exist for refugee and migrants during the resettlement period in South Africa. This study showed that there are mental health implications for those who are affected by xenophobic violence, in addition to the aforementioned social, economic and health barriers that exist for refugee and migrant women. Intervention programmes should be designed to encourage and enhance PTG, with the inclusion of empowering women through skills and capacity building in these intervention programmes. Such intervention programmes may only be feasible when there is no longer a threat of repeated xenophobic violence. Policy makers must take the lead in ensuring an end to xenophobia and xenophobic violence.

The 2015 xenophobic violence bears out the fears of refugees and migrants of repeated xenophobic violence found in the study. It appears to be a continuing problem, presenting unique challenges for those affected and requires urgent solutions. Positioning xenophobic violence as a human-caused disaster may have implications for disaster preparations, particularly through the promotion and advancement of women's mental health in disaster situations. And it is here that addressing the mental health factors are critical, otherwise these responses are "incomplete" (Oldham, 2013, p. 115). Persistent threats result in a higher experience of fear for one's safety, which fulfils criterion A assessment for PTSD (American Psychiatric Association, 2013) and suggests an overlap of the role persistent threats plays in longer-term pathology and capacity for growth. However, PTSD may not be an appropriate assessment in situations where there is an ongoing threat. Despite showing moderate levels of growth, refugee women in particular may be at heightened risk for longer-term pathology, for e.g. CPTSD, because of

exposure to war *and* xenophobic violence. Therefore, I suggest further research into longer-term pathology particularly in situations of continued threats, and for tailored intervention programmes that takes compounded trauma and capacity for growth into account.

By contextualising xenophobic violence as a human-caused disaster might emphasise the need for a stronger focus on the prevention of xenophobic violence. The prevention of xenophobic violence should be a key strategy for policymakers. Although it remains complicated and requires political will and progressive leadership, the importance of the prevention of xenophobic violence to the physical and mental health of refugee and migrant communities living in South Africa needs to be acknowledged. As this study has shown, xenophobia (attitude) is a problem when refugee and migrant women seek healthcare in the public system. This is a violation of their human rights and again speaks to a larger problem within society. While a focus on treatment in the aftermath of xenophobic violence is a short-term solution to a larger problem, it again draws attention to the prevention of xenophobic violence as a key strategy. The act of xenophobic violence draws attention to systemic problems in society and policymakers must take this into consideration when developing prevention strategies.

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APPENDIX 1: INFORMED CONSENT FORM

[Informed Consent Form for women in Johannesburg inviting them to participate in research on acute stress disorder and posttraumatic growth after exposure to the xenophobic violence; and sharing experiences of exposure to xenophobic violence]

The informed consent form has two parts:

- Information sheet (to share information about the study with you)
- Certificate of Consent (for signature if you choose to participate)

You will be given a copy of the Informed Consent Form.

Part I: Information Sheet

Introduction

My name is Janine and I am a student of Psychology studying for a degree at UNISA. I am doing research on outcomes after exposure to the xenophobic violence in May 2008. I will give you information and invite you to be part of this research. You do not have to decide today whether or not you will take part in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent form may contain words that you do not understand. Please ask me and I will explain it to you. If you have questions later, you can also ask me.

Purpose of the research

The xenophobic violence of May 2008 caused death and damage in our community. Many people were harmed by the violence, some physically and some mentally. Physical harm is easy to see but mental harm is not. I would like to find out about the mental harm that was caused to refugee/asylum seeker women, older than 18 years of age in our community. I want to learn about the women who suffered from stress symptoms and what meaning they have found through experiencing the violence. This knowledge might help us learn about the outcomes of experiences of xenophobic violence.

Type of Research Intervention

If you agree to take part in the research, you will be asked to fill in 3 questionnaires and to talk with me about your experiences before and after the xenophobic violence took place. Completing the questionnaires will take about 10 – 15 minutes and the discussion with me will take about 45 minutes. The questionnaires measure your response to the xenophobic violence. You do not write your name on the questionnaires. You do not have to bring anything with you to the venue where you will complete your questionnaires, I will provide you with a pen and the questionnaire. The discussion with me will take place in a private room. Our conversation is confidential and what you say will be kept confidential. By coming into the room with me, staff and clients at the centre will know that you are participating in the research. They will not know what you said to me. During the session, I will write notes and record the sessions by audio (voice only). I will keep the audio recordings in a safe place and only my university supervisor and myself will have access to the recordings.

Participant Selection

You are invited to take part in this research because your exposure to the xenophobic violence can contribute to knowing if stress symptoms and positive growth are present after such a disaster.

Voluntary Participation

Remember that taking part in this research is voluntary. This means it is your choice to fill in the questionnaires or not. It is your choice to talk to me about your experiences of the xenophobic violence. If you choose not to fill in the questionnaires or talk to me about your experiences, all the services you receive at this centre will continue. Nothing will change. If you choose to complete the questionnaire and talk to me about your

experiences of the xenophobic violence, all the services you are entitled to receive at this centre will remain the same as before your participation. Nothing will change.

Procedures

A. I am asking you to help me learn more about distress symptoms and positive growth after the xenophobic violence. If you choose to take part, you will be required to fill in 3 questionnaires. This will take 10 - 15 minutes. You will be given what you need in order to take part and will not need to bring anything to the venue where you will complete the questionnaires. The discussion requires that you share your experience of the xenophobic violence with me. No one else will be in the room while we have our discussion. The discussion will be recorded (voice only) and will take 45 minutes.

B. There will be other women, like you, who agree to take part in the study. If you do not want to sit in the room with other women while they fill in their questionnaires, please tell me and I will provide you with a private room. By choosing to complete with other women in the room or in a private room, staff and clients at the centre will know that you are taking part in a study about experiences of xenophobic violence. They will not know what you have answered in your questionnaire and they will not know what you have said to me in our discussion. You do not have to speak to any of the women and your questionnaire will only be seen by me and my university supervisor. The questionnaire will not be shared with anyone else. When you are done filling in the questionnaires, I will take them from you and keep it in a locked safe.

C. I will be the guide for the discussion and to make sure that you are comfortable. I can also answer questions about the research that you might have. I will ask you about the xenophobic violence and give you time to share your experience. I will not ask you about your personal beliefs or your legal status. My questions are about your experience of the xenophobic violence. You do not have to speak about anything that makes you feel uncomfortable. The discussion will take place in the centre and no one else will take part in the discussion. The discussion will be recorded, but no one will be identified by name on the tape. The information recorded is confidential and my university supervisor and I will have access to the tapes. The tapes will be destroyed after three years.

Duration

The research takes place over three months in total. During that time, you will fill in the questionnaires and take part in the discussion. The questionnaires will take 10 - 15 minutes to fill in and the discussion will take 45 minutes. I will ask you to come back in three months to complete the questionnaire again. This is because our memory changes after time and you might remember events differently (or the same).

Risks

I am asking you to think and talk about a painful and frightening time in your life. This might make you uncomfortable or emotional. If you feel like you do not want to fill in the questionnaire or if you no longer want to participate in the discussion, you may leave anytime you want. If you decide not to continue, it will not change the services you receive at the centre. If you would like to talk to me privately, I will be available to talk with you and to refer you to an organization for free counseling services.

Benefits

There is no direct benefit to you, but by filling in the questionnaires and taking part in the discussion, you are contributing to helping me find out about your exposure to the xenophobic violence.

Reimbursements

You will not be provided with any money or food to fill in the questionnaires or to take part in the discussion with me.

Confidentiality

Questionnaires

The questionnaire will not have your name on it instead it will have a number on it. The questionnaires you fill in be kept in a locked safe and will only be seen by my university supervisor and I. The information that you and other women provide in the questionnaire will be analysed and presented in my dissertation and research article. Your name will not appear in my dissertation or research article.

Discussion

The tape-recordings of the discussion will not be made available to the public. The recordings will be kept in a safe place and will only be accessed by my university supervisor and me. The information that you and other women provide during the discussion will be analysed and presented in my dissertation and research article. Your name will not appear in my dissertation or research article.

Sharing the Results

The knowledge from this research will be shared with you and your community before it is made widely available to the public. Your name will not appear on any of the documents.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so, and choosing to take part will not affect the services you receive at the Centre. You can stop the completing of the questionnaire or the discussion if you feel uncomfortable or if you no longer want to participate. You do not have to give a reason.

Who to Contact
If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact me on any of the following contact details: (email) janine.white5@gmail.com; (cell) 0833309395; or (instant messenger service) whatsapp.

This proposal has been reviewed and approved by the UNISA Ethics Committee, which is a committee whose task it is to make sure that research participants, such as yourself, are protected from harm during research.

APPENDIX 2: CERTIFICATE OF CONSENT

I have been invited to take part in research about acute stress symptoms and posttraumatic growth after exposure to the xenophobic violence in May 2008; and to share my experiences with the researcher.

I have read the information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant_____

Signature of Participant _____

Date _____

Day/month/year

Statement by the researcher/person taking consent:

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1. **Three questionnaires are to be filled and there are no incentives for filling in the questionnaires**
2. **The questions might make respondents feel uncomfortable and the respondent can at any time withdraw from the research**
3. **A discussion of 45 minutes will be held between a respondent and researcher, in which the respondent is invited to share her experiences of the xenophobic violence.**
4. **The sharing of experiences of xenophobic violence may make respondents feel uncomfortable and the respondent can at any time withdraw from the research. The respondent will be given the details of an organization that will provide free counseling services if she requires it.**
5. **All information including name, contact details, recordings and filled in questionnaires remain private, not shared with anyone other than my university supervisor and kept in a locked safe.**

I confirm that the respondent was given an opportunity to ask questions about the study, and all the questions asked by the respondent have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily. A copy of this ICF has been provided to the respondent.

Print Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____

APPENDIX 3: SASRQ FOR DSM-5

Stanford Acute Stress Reaction Questionnaire-II (SASRQ for the DSM-5)

Etzel Cardeña, Catherine Classen, Cheryl Koopman, and David Spiegel

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Part I

DIRECTIONS: Briefly describe in the space below the event that was most disturbing to you of the xenophobic violence/attacks that occurred in May 2008. Think about the first 30 days after the attacks occurred and how you felt during that time.

_____

_____

_____

1. Did you (place an x next to the answers that apply to you):

a) experience this event directly? Yes _____

b) only witness it in person? Yes _____

c) learn that the event happened to a family member or close friend? Yes _____

d) Or were you exposed to aversive details of a traumatic event professionally, for instance as part of your work as a first responder? Yes _____

2. How disturbing to you was this event? (Please circle one):

0 1 2 3 4 5 6 7 8 9 10

Not at all disturbing Extremely disturbing

Part II.

DIRECTIONS: Below is a list of experiences people sometimes have during and after a stressful event. Please read each item carefully and decide how well it describes your experience since the event described above. Refer to this event in answering the items that mention "the stressful event." Use the 0-5 point scale shown below and circle the number that best describes your experience.

0	1	2	3	4	5
not experienced	very rarely experienced	rarely experienced	sometimes experienced	often experienced	very often experienced

1.	I had difficulty falling or staying asleep, or my sleep was restless.	0	1	2	3	4	5
2.	I felt intense or prolonged feelings of distress or anxiety when something reminded me of the event.	0	1	2	3	4	5
3.	My sense of time was very different from usual.	0	1	2	3	4	5
4.	I felt emotionally numb.	0	1	2	3	4	5
5.	I tried to avoid distressing memories, thoughts, or feelings about or closely associated with the event.	0	1	2	3	4	5
6.	I had repeated distressing dreams related to the event.	0	1	2	3	4	5
7.	I became very upset when exposed to reminders of the event.	0	1	2	3	4	5
8.	I would jump in surprise at the least thing.	0	1	2	3	4	5
9.	It was difficult for me to do my work, studies, or other activities.	0	1	2	3	4	5
10.	I experienced myself as if I were a stranger	0	1	2	3	4	5
11.	I tried to avoid people, places, or activities that reminded me of the event.	0	1	2	3	4	5
12.	I felt hypervigilant or "on edge"	0	1	2	3	4	5
13.	It felt as if things were not quite real or as if I were in a dream.	0	1	2	3	4	5
14.	I tried to avoid conversations about the event.	0	1	2	3	4	5
15.	My body reacted strongly (such as sweating or rapid heart beat) when I was exposed to reminders of the event.	0	1	2	3	4	5
16.	I had problems remembering important details of the event.	0	1	2	3	4	5
17.	My reactions prevented me from getting the help or support I needed.	0	1	2	3	4	5
18.	Things I saw looked different to me from how I know they really look.	0	1	2	3	4	5
19.	I had unwanted and recurrent distressing memories of the event	0	1	2	3	4	5
20.	I could not experience the positive emotions I should have felt	0	1	2	3	4	5

21.	I felt irritable or had outbursts of anger for no good reason.	0	1	2	3	4	5
22.	I felt like crying for no particular reason.	0	1	2	3	4	5
23.	I would suddenly act or feel as if the event were happening again.	0	1	2	3	4	5
24.	I had difficulty concentrating.	0	1	2	3	4	5
25.	My behavior got me into trouble.	0	1	2	3	4	5
26.	The event caused problems in my relationships with other people.	0	1	2	3	4	5
27.	My mind went blank.	0	1	2	3	4	5
28.	I felt estranged or detached from other people.	0	1	2	3	4	5
29.	My sense of my surroundings was markedly diminished.	0	1	2	3	4	5
30.	I was in a persistent bad mood.	0	1	2	3	4	5

31. How many days since (date of event or of onset of event) did you experience considerable distress regarding this event?

(Please mark one): 0 1 2 3 4 5 or more

32. How many days since (date of event or of onset of event) did this event negatively affect your relationships, work or other important areas of functioning?

(Please mark one): 0 1 2 3 4 5 or more

33. Please describe below any other psychological or physical reactions you had related to the stressful event that have not been already mentioned in this questionnaire_____

34. During the period covered by this questionnaire:

a) Were you intoxicated or had a syndrome of withdrawal from a substance (e.g., alcohol, drugs, or medications)? Yes No

If yes, how many days?_____

b) Did a health professional diagnose you with a brief psychotic illness, a mild traumatic brain injury, or another medical condition that might have affected you psychologically? Yes/No

If yes, please indicate the name of the illness/condition: _____

If yes, how many days were you affected by that condition?

END OF QUESTIONNAIRE

APPENDIX 4: POSTTRAUMATIC GROWTH INVENTORY

Posttraumatic Growth Inventory (PTGI)

Tedeschi, R.G. & Calhoun, L.G.

The PTGI asks you about changes you experienced. I would like you to think about the xenophobic violence/attacks which took place in May 2008 and answer below by drawing a circle around the number which best describes your experience during that time.

	I did not experience this change as a result of my crisis	**I experienced this change to a very small degree as a result of my crisis**	**I experienced this change to a small degree as a result of my crisis**	**I experienced this change to a moderate degree as a result of my crisis**	**I experienced this change to a great degree as a result of my crisis**	**I experienced this change to a very great degree as a result of my crisis**
1. I changed my priorities about what is important in life. (V)	0	1	2	3	4	5
2. I have a greater appreciation for the value of my own life. (V)	0	1	2	3	4	5
3. I developed new interests. (II)	0	1	2	3	4	5
4. I have a greater feeling of self-reliance. (III)	0	1	2	3	4	5
5. I have a better understanding of spiritual matters. (IV)	0	1	2	3	4	5
6. I more clearly see that I can count on people in times of trouble. (I)	0	1	2	3	4	5
7. I established a new path for my life. (II)	0	1	2	3	4	5
8. I have a greater sense of closeness with others (I)	0	1	2	3	4	5

9. I am more willing to express my emotions. (I)	0	1	2	3	4	5
10. I know better that I can handle difficulties. (III)	0	1	2	3	4	5
11. I am able to do better things with my life. (II)	0	1	2	3	4	5
12. I am better able to accept the way things work out. (III)	0	1	2	3	4	5
13. I can better appreciate each day. (V)	0	1	2	3	4	5
14. New opportunities are available which wouldn't have been otherwise. (II)	0	1	2	3	4	5
15. I have more compassion for others. (I)	0	1	2	3	4	5
16. I put more effort into my relationships. (I)	0	1	2	3	4	5
17. I am more likely to try to change things which need changing. (II)	0	1	2	3	4	5
18. I have a stronger religious faith. (IV)	0	1	2	3	4	5
19. I discovered that I'm stronger than I thought I was. (III)	0	1	2	3	4	5
20. I learned a great deal about how wonderful people are. (I)	0	1	2	3	4	5
21. I better accept needing others. (I)	0	1	2	3	4	5

END OF QUESTIONNAIRE

APPENDIX 5: INTERVIEW GUIDE

INITIAL/ INTRODUCTORY STATEMENTS/QUESTIONS

1. **The researcher introduced herself, by name and surname (no title).**
2. **The researcher asked about the interviewee's journey and offered refreshments (Gillham, 2010).**
3. **The researcher explained to the interviewee that she was participating in an interview.**
4. **The researcher conveyed the confidential nature of the interview to the interviewee and permission was once again requested from the interviewee to audio record the interview.**
5. **The researcher mentioned when recording commenced.**
6. **The researcher asked the interviewee if she read and understood the information sheet regarding the interview and if she had any questions before the interview began.**
7. **The researcher reminded the interviewee that she could withdraw from the interview at any point.**

KEY QUESTIONS

1. **Describe your life before the xenophobic violence took place.**
   Probing questions: employment, family bonds, complex PTSD symptoms
2. **How did you come to live in South Africa? What was your experience of moving to South Africa?**
   Probing questions: intimate partner violence, genocide, natural disasters, violence
3. **Describe what happened to you when the xenophobic violence began.**
   Probing questions: ASD symptoms; PTG; family experience
4. **Describe your life after the xenophobic violence stopped.**
   Probing questions: prevailing threats, continued xenophobia

CLOSING QUESTIONS

1. **Would you like to add anything or do you have questions you would like to ask?**

   Non-verbal cue: give the interviewee a minute to reflect on any questions.

If participant becomes emotional or shows signs of distress (heavy breathing, looking around, avoiding eye contact) at any point during the interview, pause the interview and allow the participant to regain control of her emotions. Once the participant is calm, ask her whether she would like to continue or reschedule the interview. In instances where the participant remains in a state of emotion or distress, the interview is stopped. A referral to an organisation providing counselling can be made for the participant with follow up by telephone conversation from the researcher.