

POST-TRAUMATIC GROWTH AND TERRORISM

Thesis submitted for the degree of
Doctor of Psychology
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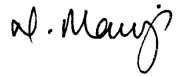
by

Nazira Mawji
Department of Neuroscience, Psychology and Behaviour
University of Leicester

2016

Declaration

By signing below, I confirm that this portfolio is my original work. The portfolio is being submitted in partial fulfillment of the degree of Doctor of Psychology and no part of it has been submitted for any other degree or academic qualification.



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Nazira Mawji

Post-Traumatic Growth and Terrorism

Nazira Mawji

Research Abstract

Literature Review: A systematic review was conducted examining factors that positively influenced post-traumatic growth (PTG) following direct exposure to a terrorist attack. A systematic search was carried out across 10 databases and eleven studies were selected for inclusion. Eight studies used quantitative methodology and three used qualitative methodology. The findings revealed six themes that emerged from the eleven studies covering the specific factors that positively influenced PTG. Further research is needed to understand better how these factors interact with terrorism exposure to experience PTG and how actual growth differentiates from perceived growth.

Research Project: The current study explored the experiences of recovery for adult, Ismaili Muslim survivors of the Westgate Mall terrorist attack which took place in September 2013, in Nairobi, Kenya. The study also sought to understand how the Ismailis made meaning of their experiences following the attack. Six participants were interviewed using a semi-structured interview topic guide and the data was analyzed using the Interpretive Phenomenological Analysis (IPA) approach. The findings suggested that Ismaili adults can largely experience positive changes following an attack but are also able to experience negative changes. Based on these findings, clinical implications, suggestions for further research and limitations are discussed.

Service Evaluation: The current study was conducted in the context of the Ismaili community in Nairobi, and within the Community Counselling Services (CCS). CCS is an Ismaili service that provides voluntary counselling for Ismailis and carries out frequent psycho-social interventions for Ismaili adults with physical disabilities. The current study explored the experiences of Ismaili adults with physical disabilities and of CCS members of partaking in the psycho-social interventions, and evaluated the extent to which the interventions met their objectives. The findings indicated that only two out of the three CCS objectives were being met. These findings were reviewed in light of existing literature.

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Part A: Critical Literature Review

**Factors that Positively Influence Post-traumatic Growth in Survivors of Terrorist
Attacks: A systematic review**

Abstract

Literature examining the psychological effects of terrorism exposure has linked the trauma of terrorism to post traumatic stress disorder, panic disorder, and symptoms of depression. In addition, recent research has discovered that adversity can also lead to positive personal transformation and higher levels of psychological well-being. This phenomenon has been termed 'Post-Traumatic Growth' by Tedeschi and Calhoun (1994). The current document is a systematic review of the literature that examines factors that positively influence post traumatic growth following direct exposure to terrorist attacks. A systematic search was carried out across 10 databases including Applied Social Sciences Index and Abstracts (ASSIA), Cochrane Database of Systematic Reviews, Medline, PsychArticles, PsychExtra, PsychInfo, SCOPUS, Social Service Abstracts, Sociological Abstracts and Web of Science. In adherence to the inclusion and exclusion criteria, a total of eleven studies were selected for inclusion in the review. Eight studies used quantitative methodology and three used qualitative methodology. Six themes emerged which covered all the specific factors that positively influenced post traumatic growth. These were post traumatic stress, demographics, cognition, emotional reactions, resources, and terrorism exposure. Further research is needed to understand better how these factors interact with terrorism exposure to experience PTG, to clarify the experience of the three stage cognitive process that leads to growth, and how actual growth differentiates from perceived growth.

1. Introduction

1.1 Post traumatic Growth

The term post traumatic growth (PTG) was coined by pioneering researchers, Tedeschi and Calhoun, and refers to “an experience of positive psychological changes as a result of a struggle with highly challenging circumstances” (Tedeschi & Calhoun, 2004, p.1). There are some important conditions and assumptions that underlie PTG. First, it appears to focus more specifically on situations of major crises. Second, it involves positive life transformations that are not defined by illusion or positive thinking. Third, PTG is experienced as an outcome or an ongoing process, and not as a coping mechanism for working with trauma. Fourth, it appears that significant growth may require a significant threat or shattering of fundamental schemas and it may coexist with psychological distress (Calhoun & Tedeschi, 2001).

Tedeschi and Calhoun (2004) developed a model to explain how the processing of trauma leads to PTG. According to this model, the process takes place over three stages of cognitive processing. The first stage is comprehensibility, whereby the person tries to understand what has happened. This stage involves intrusive and automatic cognitive processing or rumination about the unpleasant event to understand the experience. Rumination is a central element in this model and implies a sense of repeated thinking which involves recollecting, solving problems and trying to make sense of things. With increasing comprehensibility comes manageability, the second stage of processing. This stage involves management of automatic rumination and developing ways to deal with distressful emotions. There may be a time lag between the occurrence of the stressful event and the probability of feeling strong enough to manage the situation. Tedeschi and Calhoun (2004) suggest that if management of the situation is at least moderately successful, the third stage of meaningfulness sets in. This stage involves engaging in more deliberate and reflective rumination of how to rebuild their world, find meaning from the event, change prior schemas to more adaptive ones. This process involves being able to restructure one's life narrative to incorporate the unfortunate event within it which leads to PTG.

To help quantify the experience of growth, Tedeschi and Calhoun developed five domains of PTG. The first is an increased appreciation for life and a change in priorities, the second is closer, more intimate, and more meaningful relationships with others, and the

third is a sense of increased personal strength. The fourth is seen in the individual's identification of new possibilities in their life, and the fifth is growth in spiritual and existential matters, where individuals report a new closeness with and reliance on God for life stresses. (Tedeschi & Calhoun, 1996). Each of the five domains are incorporated into the Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) to measure the experience of growth. This inventory enables one to report the degree of positive change experienced after a potentially traumatic event. It has further demonstrated good internal consistency, test-retest reliability, discriminant, convergent and construct validity (Tedeschi & Calhoun, 1996). It has also shown to be a reliable and valid tool for measuring growth among individuals from different cultural backgrounds and ages exposed to different, potentially traumatic events (Palmer, Graca, & Occhietti, 2012). It rates from 0, indicating no positive changes experienced, to 5, indicating a great degree of positive changes experienced. Each of the five domains are meaningful aspects of PTG and that in measuring the extent of growth it must be noted that growth is experienced differently by each individual. Thus, growth may be experienced in either one or more domains. The changes may not take place simultaneously and also may not be experienced the same for all individuals (Taku, Cann, Calhoun, & Tedeschi, 2008).

This is a general model and variations of it may exist for different individuals (Tedeschi & Calhoun, 2004). Further, it is also not the only model to explain the process leading to PTG. The Conservation of Resources (COR) theory has also received significant attention (Hobfoll et al., 2007). The theory denotes that stress primarily results from loss or the threat of loss of resources valued in the individual's world. Resources include optimism, self esteem, sense of mastery, coping strategies, social support and economical support. Social support is classified into two major categories, emotional support and instrumental support. Emotional support includes providing supportive words and actions whereas, instrumental support involves providing tangible assistance such as material or physical assistance (Hobfoll, Canetti-Nisim, & Johnson, 2006). Thus, distress resulting from the loss of resources leads to greater stress and eventually greater PTG. Additional research that has supported this understanding has further noted that it is only when the cognitions of growth are transformed into action that actual growth is experienced (Hall & Hobfoll, 2006).

However, other researchers have contended this understanding. For example, Wagner, Forstmeier and Maercker (2007) have suggested that while the behavioral component may be added to the core cognitive component of PTG, it is not viewed as being a necessity to experiencing actual growth. The debate is currently ongoing and investigations continue to attempt to understand the complexity of the processes leading to PTG. The Organismic Valuing Theory (OVT) is yet another comprehensive person-centered theory on PTG developed by Stephen Joseph (2006 - Growth following adversity). The Organismic Valuing Process (OVP), indicates three possible cognitive outcomes that arise while trying to resolve the psychological issues of trauma. The first, being the assimilation of one's traumatic experiences resulting in a decrease in distress levels and enabling one to return to pre-trauma levels. Assimilation alone however, could make the person more vulnerable to re-traumatization as is suggested by Stephen Joseph. The second outcome could be that the trauma experiences are negatively accommodated resulting in further distress and psychopathology. Third, that the trauma experiences are positively accommodated resulting in growth. Growth takes place because the individual has been able to integrate the new distressing information and is thus able to develop a new structured world view. Growth is understood as being "the natural endpoint of trauma resolution" (Joseph & Linley, 2006, p. 131), and the process is described as being part of an intrinsic, human drive consistent with Carl Rogers's concept of self-actualization (Splevins, Cohen, Bowley, & Joseph, 2010).

A comparison of the models reveals that Tedeschi and Calhoun's theory is cognitive based as is Stephen Joseph's OVT theory. However the difference between these two models is that whereas in the former, ruminations are considered critical in reducing distress and enabling the integration of the distressing event, the OVT focuses on assimilation process to reduce distress and the distressful event is only integrated if it is positively accommodated by the individual. In contrast to both these theories, Hobfoll's action-focused theory emphasizes the necessity of a behavioral component in addition to the cognitive component to experience growth. His COR theory also focuses more on the resources available to the individual, indicating that a loss of personal and social resources would lead to distress, and reducing the distress by gaining necessary resources would lead to PTG. The variations in the models that conceptualize and measure PTG can make it difficult for researchers to consistently evaluate PTG, especially in different contexts.

However, it would be necessary to clarify that PTG cannot be viewed as a distinct entity, but rather as consisting of experiences that are expressed in different areas of one's life. Tedeschi and Calhoun's five domains is an example of these different areas. Further, although significant research has been conducted on the COR and OVT theories, Tedeschi and Calhoun's model is still the most widely used and accepted in research (Joseph & Butler, 2010). Hence, it will be used in the current review to explain the process leading to growth.

1.2 Terrorism

The definition of terrorism recommended by the High-Level Panel on Threats, Challenges and Change to the United Nations Security Council (HLP) refers to any "action that is intended to cause death or serious bodily harm to civilians or non-combatants, when the purpose of such an act is to intimidate the population, or to compel a government or an international organization to do or to abstain from doing any act" (United Nations, 2004, p.65). According to Vasquez et al. (2008), the impact of terrorism on individuals and communities is devastating and often frightens and traumatizes the civil population.

Sadly, terror attacks have become widespread today and incidents have been on the increase. A most recent attack was the deadly shooting of 49 people in Orlando, Florida in June 2016. Previous to that was the attack in November 2015 in Paris. Other countries and cities similarly affected over the last decade include Mali, Kenya, Madrid, Syria, London, Pakistan and Mumbai. However, the 2001 terror attacks in New York most significantly changed the world and resulted in the emergence of numerous studies on terrorism. Despite the horrific consequences, national polls indicated that survivors also reported experiencing various positive benefits from the attacks. These included re-assessing their life priorities and becoming closer to their families (Danieli, Brom, & Sills, 2004). It was at this time that researchers developed interest in the fields of terrorism and PTG and began conducting empirical studies on this relationship.

1.3 Posttraumatic Growth and Terrorism

Research has indicated that PTG can be experienced following terrorist attacks (Butler et al., 2005; Helgeson, Reynolds, & Tomich, 2006; Linley, Joseph, Cooper, Harris, & Meyer, 2003; McCormack & McKellar, 2015). As stated above, Americans affected by the September 11 attacks experienced PTG in the first few months following the attacks which

resulted in more positive changes in their worldview (Butler et al., 2005; Fredrickson, Tugade, Waugh, & Larkin, 2003). Val and Linley (2006) found that the Madrid residents indirectly affected by the 2004 train bombings experienced PTG and other positive changes through social change and demonstrations. Additionally, a study examining experiences of young adults directly exposed to armed conflict in Kashmir showed that relatively high levels of PTG were experienced by this sample, which was significantly associated with social support and positive well-being (Bhat & Rangaiah, 2015).

However not all studies corroborated these findings. Laufer and Solomon (2006) studied a large sample of Israel adolescents exposed to terrorism and found that three-fourths of the sample reported no-mild experiences of growth. Milam, Ritt-Olson, Tan, Unger and Nezami (2005) also studied an ethnically-diverse American adolescent sample indirectly exposed to the September 11th terrorist attacks. The findings showed that the majority of the sample showed neutral-mild levels of PTG. The authors noted that the ethnic diversity might have explained this, as a large number of Iranian-American participants reported neutral PTG scores, and the larger, negative implications from the terrorist attacks for these participants would have been greater than for other ethnic groups.

Considering these inconsistencies, some researchers have suggested that a way to better understand PTG in the context of terrorism is to examine factors that influence it (Prati & Pietrantonio, 2009). However, literature in this area is significantly limited and the findings are varied. For instance, Hobfoll et al. (2007) conducted several studies investigating PTS symptom levels, terrorism exposure and the perception of PTG, during and after terror attacks in Israel. Their findings showed that PTG was possibly influenced by exposure to terrorism and PTSD. Other studies have shown that factors related to social aspects positively influence the experience of PTG. As mentioned, Paez, Basabe, Ubbillos and Gonzalez (2007) found that survivors of the Madrid train bombings who engaged in social sharing and demonstrations experienced PTG. Sharing experiences about the traumatic event collectively reinforced empathy, social support and the reconstruction of positive social beliefs which facilitated the experience of PTG. The authors noted that engaging in demonstrations reinforced social integration, decreased the impact of stress and reinforced positive reactions such as hope (Paez et al., 2007). Additionally, Solomon and Laufer (2005) also showed that one of the best predictors of a positive worldview was social support.

Although these findings shed light on some of the factors found to positively influence the experience of PTG, it is difficult to get an overview of research in this area or to draw any conclusions as each study investigates different factors in different contexts.

From the literature search, no meta-analyses were found to focus specifically on factors that positively influenced the experience of PTG following terrorism. However, three meta-analyses were found on PTG and terrorism. One review of five studies indicated that positive outcomes derived from PTG occur only when cognition is manifested in action, which they termed action-focused growth (Hobfoll et al., 2007). The authors stated that cognitive restructuring without becoming action may be perceived as growth, but actual growth occurs when cognition is transformed into action. The second meta-analysis found that minority persons and younger people seemed to experience greater PTG. The article stated that minority persons' greater experience with adversity might explain their tendency to derive good from bad. The article further notes that PTG is more likely to occur under conditions of severe threat and younger people report greater perceived threat during a traumatic experience. Women also reported greater PTG, possibly due to the fact that they are more absorbed in constructive self-talk and adaptive re-framing than men (Helgeson et al., 2006). The third review examined four studies on terrorism-related PTG in Israel and showed that greater PTG was related to greater exposure to terrorism, social support, greater self-efficacy and being female (Hall, Canetti-Nisim & Hobfoll, 2008). In regards to social support, Tedeschi and Calhoun's (2004) research have corroborated these findings. In addition, Hall, Canetti-Nisim and Hobfoll (2008) note that the loss of psycho-social resources led to greater PTG. They explain this by stating that following the distress created from the loss of psycho-social resources, the individual attempts to reduce this distress by regaining appropriate resources, such as social support, to manage and overcome the distress and this leads to PTG.

A limitation of the above meta-analyses is that they all report very different findings regarding the factors that positively influence PTG. Secondly, different measures assessing different dimensions of PTG were used in the studies, leading to difficulties in drawing conclusions. Third, the most recent meta-analysis was published in 2008 and an updated review of recent literature would provide a valuable addition to the evidence base, especially given the stark rise in global terrorism and its devastating impact on survivors. It

is in light of this that the current literature review has been undertaken. The purpose is to evaluate studies published in the last 10 years that examine factors that positively influence the experience of PTG following direct exposure to a terrorist attack, to synthesize and provide a comprehensive overview of the findings.

2. Method

A critical review of studies that investigated factors that positively influenced the experience of PTG following direct exposure to a terrorist attack was undertaken. This involved systematic searches using ten electronic databases that allowed the researcher to gain access to a wide range of information on the topic area. The databases were Applied Social Sciences Index and Abstracts (ASSIA), Cochrane Database of Systematic Reviews, Medline, PsychArticles, PsychExtra, PsychInfo, SCOPUS, Social Service Abstracts, Sociological Abstracts and Web of Science. The search terms used were combinations of “terror”, “terrorism”, terrorist”, “attack”, “post traumatic growth”, “posttraumatic growth”, “post-traumatic growth.” In addition, previous review and reference sections of relevant articles were hand searched to try and make the search as comprehensive as possible.

The first step involved conducting a systematic search of the databases to find articles that included a majority of the search terms in their titles or abstracts. A total of 444 articles were identified, of which 431 were identified through data base searches. The second step involved removing duplicates, and screening the articles by reading the titles. A total of 17 duplicates were removed leaving 414 article titles that were read. From these, 337 articles were excluded as they did not meet the inclusion criteria. The abstracts of the remaining 77 articles were read, of which 51 were excluded, leaving 26 articles. The third step involved reading the full text of the remaining 26 articles and applying the inclusion and exclusion criteria in more depth. From this, 15 articles were found not to be appropriate (see Appendix A), leaving a total of 11 articles that were appropriate to be included in the current review. From these 11, eight were quantitative articles and three were qualitative.

The same search process was applied to articles identified through reference sections of relevant articles. Specifically, 13 articles were identified through this search method and the titles of all 13 articles were read. From these, four articles were excluded, as they were not relevant to the review question, leaving nine articles remaining. The abstracts of all nine articles were then read from which four were excluded as they did not meet the inclusion criteria. The full text of the remaining five articles were read and all were found not to be appropriate (see Appendix A) and were therefore excluded from the current review.

Figure 1 displays a visual flow chart to further clarify the article screening and selection process (Figure 1). Following the selection of the 11 articles, a systematic review

for each article was carried out using a data extraction form, where the study aims, sample population, methodology, outcome measures, reliability and validity, and limitations were examined (see Appendix B).

The following inclusion criteria was applied: Articles examining factors that positively influenced the experience of PTG following direct, or direct and indirect, exposure to a terrorist attack. Studies defining PTG using Tedeschi and Calhoun's definition were accepted. Studies looking at samples of participants aged 18 years and above. Articles that were in peer-reviewed, English language journals, published between 2005 and 2015 were accepted. Further, both qualitative and quantitative studies were accepted. Articles were excluded if they did not fit the above inclusion criteria. The reason for selecting only articles that included a focus on direct exposure was to access research on PTG as experienced following direct exposure. However, due to the limited availability of literature in this field, articles that included both direct as well as direct and indirect exposure were accepted. The focus was maintained on direct exposure only. Secondly, only articles that defined PTG using Tedeschi and Calhoun's definition were accepted because their definition is currently the most widely used in research studies (Josphe & Butler, 2010) and it would result in greater consistency across the studies. Fourth, the 10-year time frame ensured that the most recent literature was examined.

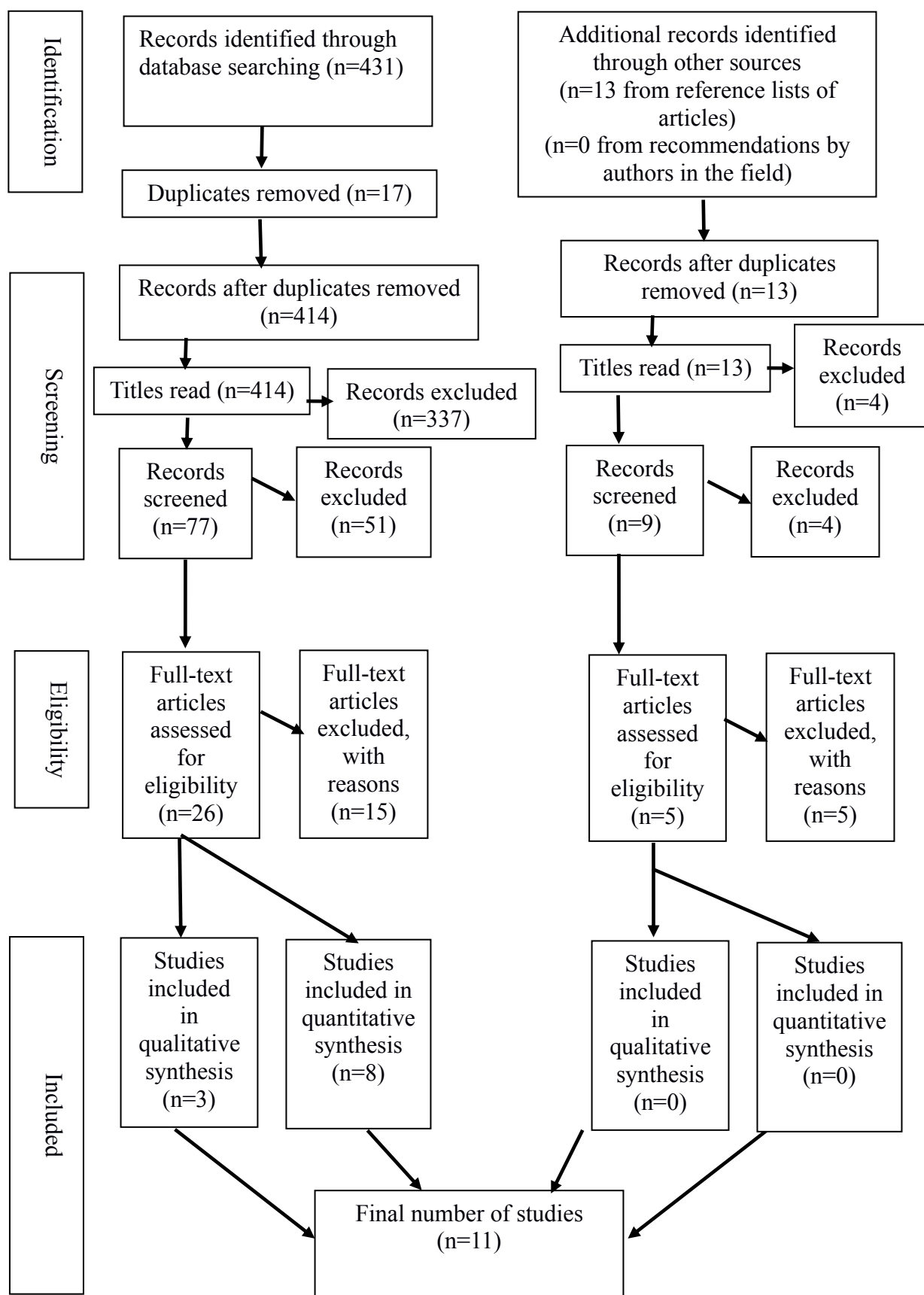
2.1 Quality Appraisal

The 11 studies included in the current review were appraised for methodological quality using the Mixed Method of Analysis Tool (MMAT). The tool simultaneously appraises and describes complex, systematic literature reviews that include qualitative, quantitative and mixed methods studies. For quantitative reviews, the MMAT appraises randomized controlled (trials), non-randomized, and descriptive studies (Pluye et al., 2011). As the current review included three qualitative and eight non-randomized quantitative studies, the MMAT Qualitative and the MMAT Quantitative non-randomized tools were used respectively. The MMAT Qualitative and Quantitative appraisal tools do not use a cut off mark to determine the quality of a study, but rather, they provide a set of questions that are descriptive in nature. The MMAT appraises qualitative studies through four questions. The first assesses whether the source of the data is considered relevant to the study. The second assesses whether the analysis of the data is considered relevant to the study. The

third assesses whether appropriate consideration is given to the context of the research, and the fourth assesses whether appropriate consideration is given to the potential influences of the researcher(s) in the study. The three qualitative studies were appraised favorably and considered credible, according to these questions, and were therefore included in the current review.

Regarding the quantitative studies, four areas were assessed by the MMAT tool including participant recruitment, the use of appropriate measures, participant comparability within groups, where applicable, and response rates of participants to the study. Regarding the first area, the assessment indicated that all eight studies recruited participants in a way that minimized selection bias, and used appropriate measures in their research. Regarding the second area, four of the eight studies indicated comparability between the groups while for the remaining four studies this point was not applicable. Regarding the third area, the MMAT notes that a participant response rate of 60% is considered acceptable. This was found to be the case in four studies. Two additional studies had response rates of over 56%, a third of 42%, and the response rate for the fourth article was not reported. However, these studies were included in the review as they met all other quality checks and were deemed to be appropriate and relevant to the review question. Overall, the 11 articles were deemed to be of adequate quality to be included in the current review (see Appendix C for a more detailed summary of the MMAT Qualitative and MMAT Quantitative non-randomized appraisals of the 11 studies).

Figure 1: Flow Chart



3. Results

The total sample pool consisted of 5,160 participants. Of this, 72 participants comprised the qualitative studies and 5,088 the quantitative studies. For ease of reference the results have been divided into two sections, qualitative and quantitative. Across the eleven studies, six themes of factors that positively influenced PTG emerged, namely, post-traumatic stress, demographics, cognition, emotional reactions, terrorism exposure and resources.

3.1 Qualitative Studies

Of the three qualitative studies, two were longitudinal, and one was cross-sectional. One longitudinal study examined growth over four years (Konvisser, 2013), and the second at two and seven years post attack (McCormack & McKellar, 2015). 61 (85%) participants were female and 11 (15%) were male. All but one participant (98.6%) were Israeli. 20 (27.7%) participants were exposed to suicide bombings and 52 (72%) were exposed to rocket attacks. One study used the snowball and convenience methods of sampling (Hirsch & Lazar, 2012), another used word of mouth and advertisements (Konvisser, 2013), and the third did not report the recruitment method (McCormack & McKellar, 2015). All three studies used interviews to gather data, while two used questionnaires in addition. Two studies were conducted in Israel and one in the U.K.

Across the qualitative studies, four themes emerged, namely cognition, emotional reactions, resources and terrorism exposure. These are discussed below.

3.1.1 Cognition.

Cognition was highlighted in all three studies as facilitating the experience of PTG following terrorism. This theme included rumination, self-perception, such as self-esteem and self-respect, perception of the event, narratives and cognitive flexibility. The factors reported by the qualitative studies as most significantly and positively influencing PTG were rumination, narratives and cognitive flexibility. Regarding rumination, Hirsch and Lazar (2012) noted that only participants who engaged in deliberate rumination about the meaning of their situation and on the philosophy of life experienced PTG. This finding supports Janoff-Bulman's (1992) theory which states that rumination involves cognitively reestablishing or revising the person's belief system held so far, which, in turn enhances PTG. Also, Konvisser (2013) examined the experiences of Israeli survivors of politically

motivated violence and found that those who engaged in rumination about themselves and their future and were able to integrate the painful thoughts experienced PTG. A longitudinal study showed how a survivor of the Bali bombing in 2005 moved from fateful contemplation to growth through more deliberate rumination. Specifically, when the participant experienced decreased distress levels, he began to experience purposeful rumination about the fragility of his own life and his vulnerability, the insights from which triggered his experience of growth (McCormack & McKeller, 2015).

Regarding narratives, Konvisser (2013) highlights this not only as a facilitator for PTG, but also a therapeutic tool. Specifically, he found that the stories and meanings of the participants' experiences were cognitively processed by thinking about them and disclosing them in a safe environment. Through their stories they came to understand how they had been positively transformed and could then integrate these new understandings into their schemas.

Cognitive flexibility emerged three times in the same study and was noted to be significant in its positive influence on PTG. First, Konvisser (2013) found that participants who identified themselves as survivors instead of victims experienced PTG. Second, participants who reconstructed their shattered assumptions and formed an integrated worldview that included the traumatic event also experienced PTG. Third, those who adjusted their future expectations to fit with the new reality, such that they were able to move forward in their lives by identifying new possibilities and actively seeking solutions for dealing with challenges, also experienced PTG.

3.1.2 Emotional reactions.

Emotional reactions were examined and highlighted by two qualitative studies as positively influencing PTG. Particularly, experiencing distressing emotions appeared to be significant in achieving PTG. For example, Konvisser (2013) found that participants who experienced PTG initially went through painful emotions such as grief, pain and helplessness, and it was through this that they were challenged to confront them, accept them, make them a part of their story, and live with them in a productive way. Thus, it was the process of emotionally owning and integrating their painful emotions which helped them move forward and experience growth.

The theme of emotional reactions is perhaps most notably highlighted in McCormack

and McKellar's (2015) study. In it, the participant experienced several emotions including grief, confusion, vulnerability, anxiety, vigilance, disbelief and anger. These shifting emotional reactions and the void of self-identity triggered a search for meaning in his life and the consideration of a new life purpose. The study notes that these emotional reactions were the processes used to make meaning of this traumatic event, they enabled him to redefine his life and acted as a facilitator of positive action and growth (McCormack & McKellar, 2015).

3.1.3 Resources.

The theme of resources comprised internal resources including optimism, mastery, self-efficacy and active coping, and external resources such as social and material support. This theme was examined by two studies (Hirsch & Lazar, 2012; Konvisser, 2013) and both highlighted the significant, positive influence of internal resources on PTG. For instance, Hirsch and Lazar (2012) found that mothers who relied on their personal resources of denial, humor and optimism were able to control distressing emotions and change the meaning of their situation. These outcomes were noted as necessary steps in attaining growth. Konvisser (2013) also found that participants who experienced PTG were optimistic, hopeful, and celebrated life, all of which replaced initial hatred toward the perpetrators. Also, having the inner resource of staying in control during the crisis positively influenced the experience of PTG. A third resource was being able to learn and move forward from past experiences, thereby providing psychological preparedness, which in turn facilitated growth and change. A fourth resource was having a sense of increased personal strength and tapping into core values, which helped participants to discover who they are, to deepen and clarify their core values, and reconstruct their world (Konvisser, 2013).

3.1.4 Terrorism exposure.

Terrorism exposure was the fourth theme that emerged as positively influencing the experience of PTG. This theme included duration of exposure, level of exposure, recency of exposure, and objective and subjective exposure. Within the qualitative studies, duration of exposure positively and most significantly influenced PTG. For example, Hirsch and Lazar (2012) found that only participants exposed to rocket attacks for a long duration, at least eight years, as opposed to a short duration, experienced PTG. Specifically, all participants

experienced comprehensibility and manageability stages of cognitive processing, but only those exposed to long duration of terror experienced the stage of meaningfulness. The authors explain this by noting that only after an individual has reached a certain point of PTS, without reaching the syndrome level, is PTG possible.

3.2 Quantitative Studies

Of the eight studies in this category, seven were cross-sectional and one was longitudinal, measuring growth at nine weeks and six and half months post attack. 3,121 (61%) participants were female and 1,967 (39%) were male. 2,396 (47%) participants were Norwegian, 1,135 (22%) were Israeli, 1,505 (29%) were American, and 52 (2%) were Pakistani. 2,396 (47%) participants were exposed to a car bomb, 940 (18%) to rocket and missile attacks, 1,505 (29%) to the September 11 attacks, and 247 (6%) to suicide bombings. Three studies used respondents of a previous study (Blix, Birkeland, Hansen, & Heir, 2015; Blix, Hansen, Birkeland, Nissen, & Heir, 2013; Birkeland, Hafstad, Blix, & Heir, 2015) and two studies used random sampling (Hall et al., 2010; Dekel & Nuttman-Shwartz, 2009). Additionally, Hall et al. (2010) used press releases, advertisements and websites to recruit their sample, Bayer-Topilsky, Itzhaky, Dekel and Marmor (2013) recruited students through their university, and Kiran, Rana and Azhar (2010) recruited through the participants' employment company. Three studies were conducted in Norway, three in Israel, one in the U.S. and one in Pakistan.

From the eight quantitative studies, five themes of positively influencing factors emerged, namely, posttraumatic stress, demographics, cognition, emotional reactions and resources. Themes were considered 'frequent' or 'common' if the factors that comprised them were reported to be positively influencing PTG in at least two studies.

3.2.1 Posttraumatic stress.

Posttraumatic stress (PTS) was reported most frequently as positively influencing PTG was examined in all eight studies, with six reporting a positive correlation between the two variables. For instance, Blix et al. (2013) investigated PTG among survivors of the Oslo car bombing and found it to be related to higher Posttraumatic Stress Disorder (PTSD) symptoms. The authors note that this might be explained by the use of psychological processes such as cognitive dissonance, where the more traumatic the experience is, the more one has to reduce distress. Additionally, Butler et al. (2005) explored cognitive,

coping, and trauma symptom predictors of PTG at two times among Americans following the September 11 attacks. The findings revealed the existence of a linear (R^2 range = .045 - .125, $p < .001$) and curvilinear (inverted U) relationship (R^2 range = .160 - .047, $p < .001$) between trauma symptoms and growth at time one. Thus, participants who reported both higher and intermediate trauma symptoms reported higher PTG. However, at six months follow-up, the authors found that higher PTG was associated with reduced trauma symptoms. The authors explain these findings by suggesting that trauma symptoms represent attempts to cognitively understand the traumatic event, especially in the early stages, and that this was needed to precipitate growth.

Bayer-Topilsky et al. (2013) investigated PTG and mental health outcomes among civilians exposed to ongoing terror. The authors noted that PTS was positively correlated with PTG ($r = .36$, $p < .001$), and suggested that PTG may reflect a cognitive attempt to reduce distress caused by the traumatic event. Hall et al. (2010) also found that PTS was positively correlated with PTG ($r = .24$, $p < .001$), among Israelis exposed to missile attacks. The authors noted that PTG may be a result of an individual's attempt to make sense of the traumatic events. Dekel and Nuttman-Shwartz (2009) offered further support for this relationship among Israeli survivors of rocket attacks ($r = .44$, $p < .001$). The authors suggest that Calhoun and Tedeschi's (1998) theory of growth resulting from an individual's struggle to make sense of a distressing event might explain this finding. Birkeland et al. (2015) also found a positive relationship between high PTS and high PTG among some survivors of the 2011 Oslo bombing. They suggest that PTG may be an attempt to help people deal with emotional distress and enhance well-being.

3.2.2 Demographics.

The second most commonly reported theme was demographics, which was examined in six studies, five of which showed positive correlations between various demographic variables and PTG. The variables that emerged were age, gender, ethnicity, education and income level. Of these, gender, age and education were reported as positively influencing PTG in two or more studies. Regarding gender, four studies reported consistent findings regarding its positive relationship with PTG (Hall et al., 2010; Blix et al., 2013; Butler et al., 2005; Birkeland et al., 2015). Hall et al. (2010) noted that being female predicted greater PTG ($\beta = .08$, $p < .05$), and suggested that this may be due to the tendency of women to

look for and offer social support, thereby gaining increased closeness with others, which is a key element of PTG. Blix et al. (2013) also found that being female was positively correlated with PTG ($r=.19$, $p<.005$) after exposure to the Oslo car bombing. Butler et al. (2005) noted that out of seven variables, being female was one of two most predictive of PTG in the long term (β range = $-.065$ - $.036$, $p<.05$ - $.001$). Further, Birkeland et al. (2015) reported that the female gender was positively correlated to PTG ($OR=4.88$, $p < .01$).

Younger age was also reported as positively influencing PTG. Hall et al. (2010) found that age was negatively correlated with PTG ($r=-.08$, $p<.001$), indicating that younger individuals showed higher growth. Butler et al. (2005) also found a negative correlation, where younger age was a significant predictor of growth (β range = $-.057$ - $.048$, $p<.05$ - $.01$). Kiran et al. (2010) corroborated this with their findings of a negative correlation between age and PTG, and suggested that a certain level of cognitive maturity might be necessary to find benefits and meaning following trauma. Extremes of age may interfere with this capacity due to the limitations caused by age on higher cognitive functions.

Education was mentioned by two studies. Butler et al. (2005) found that participants with less education reported higher growth levels. Hall et al. (2010) also found a negative correlation between education and PTG ($r=-.6$, $p < .001$) and suggested that those with lower education may use emotion-focused coping instead of more constructive ways of coping, which led to PTG. It is unclear why this might be the case, however, the authors might be referring to the idea that those with lower education may possess fewer cognitive resources to deal with stress. These findings run counter to previous reports (Fontana & Rosenheck, 1998; Updegraff, Taylor, Kemeny, & Wyatt, 2002) and therefore could be considered tentative.

3.2.3 Cognition.

The third most commonly reported theme was cognition, which was examined in five studies, four of which found some aspects of cognition to be positively related to the experience of PTG. This theme included rumination, self-perception, perception of the event, narratives and cognitive flexibility. Of these, perception of the event and rumination were reported as positively influencing PTG in two or more studies.

The survivor's perception of the traumatic event was mentioned in three studies, all of which indicated that participants' perception of the event as central in their life positively

influenced their experience of PTG. For example, Blix et al. (2015) found that the centrality of the traumatic event was significantly related to PTG for survivors of the Oslo bombing. Additionally, Bayer-Topilsky et al. (2013) and Dekel and Nuttman- Schwartz (2009) both showed that participants reporting greater perceived threat also reported greater PTG ($r = .29$, $p < .001$, $\beta = .5$, $p < .001$, respectively). They explain that the higher the level of perceived threat, the greater the experience of PTS, which is positively correlated with PTG. Regarding rumination, Butler et al. (2005) noted that participants who engaged in cognitive processing of the event soon after it occurred, experienced positive changes in worldview and cognitive re-framing, thereby reporting greater PTG.

3.2.4 Resources.

The fourth most commonly reported theme was resources. It was examined in three studies (Kiran et al., 2010; Hall et al., 2010; Bayer-Topilsky et al., 2013), of which two found it to positively influence PTG. The theme of resources included internal resources such as optimism, self-efficacy, mastery and active coping, and external resources including psychological, social and financial support. Only external resources were reported as positively influencing PTG in more than one study. Hall et al. (2010), for instance, found that PTG was positively correlated with the loss of psycho-social resources ($r = .32$, $p < .001$) and greater social support. Kiran et al. (2010) noted that availability of external psycho-social resources, such as material and psychological assistance, contributed to greater PTG ($r = .32$, $p < .001$).

3.2.5 Emotional reactions.

The fifth most commonly reported theme was emotional reactions. It was examined in two studies and both found that negative emotional reactions were positively correlated with PTG. For instance, Blix et al. (2013) showed that participants with higher peri-traumatic emotional reactions such as fear, helplessness and horror, experienced higher PTG. They explain that greater trauma-exposure and peri-traumatic reactions triggers a process of meaning-making where individual's try to understand what happened and work with the emotional reactions. This in turn leads to PTG. Kiran et al. (2010) also noted that participants who experienced greater avoidance experienced greater PTG, and suggested that distress can therefore co-exist with growth.

4. Discussion

The current review was undertaken to examine and synthesize the results of studies looking at factors that positively influenced PTG following direct exposure to a terrorist attack. 11 studies were included, three of which were qualitative and eight were quantitative. Six overarching themes of factors that positively influenced PTG emerged, namely posttraumatic stress, demographics, cognition, emotional reactions, resources and terrorism exposure. The findings regarding cognition and emotional reactions were consistently reported in the quantitative and qualitative studies. Specifically, the cognitive factor of rumination was found to positively influence the experience of PTG, where purposeful rumination, in particular, played a key role in this process. Additionally, experiencing negative emotions, such as anger, fear, grief and helplessness at the initial stages after the attack was also found to positively influence PTG. It appeared that experiencing these emotions enabled the individuals to engage in some degree of constructive cognitive processing, producing schema changes that contributed to the experience of PTG.

The themes of resources and terrorism exposure were reported differently for the qualitative and quantitative studies. In the former, internal resources were found to positively influence PTG, whereas in the latter, external resources positively influenced the experience of PTG. Also, in the qualitative studies, the duration of exposure positively influenced PTG, however, in the quantitative studies, there was no clear finding regarding the influence of terrorism exposure to PTG. This was because different aspects of exposure were singularly measured in individual studies. Thus, the theme of terrorism exposure may not be fully understood regarding its influence on PTG and further research exploring this area is needed.

The remaining two themes of PTS and demographics, particularly being female, positively related to PTG. However, they were only measured in the quantitative studies. There are several possible reasons that might explain these findings. First, different methods of data collection were used in the qualitative and quantitative studies. Thus, in-depth interviews are likely to yield more detailed information regarding the growth process than surveys. This may explain why the themes of cognition, emotional reactions and internal resources were reported in greater depth in the qualitative studies. Further, large samples sizes in the quantitative studies may explain why the theme of demographics

was only measured in these studies.

Another point of discussion is the parallels that are observed between the factors outlined in the current review, and Tedeschi and Calhoun's five dimensions of growth. For instance, internal resources, such as tapping into one's inner strength and being self-reliant, seem to resemble the dimension of increased personal strength. Additionally, the internal resource of celebrating life resembles the dimension of appreciation of life. Further, external resources, such as seeking social and family support, resembles the dimension of developing closer relationships with others. Also, searching for meaning and considering a new purpose in life resembles the dimension of growth in spirituality and existential matters. These parallels raise an interesting point of whether influencing factors may serve more than one purpose, and act as predictors of PTG as well as outcomes. It also raises the question of whether it is possible to draw a line between factors that positively influence PTG and its outcomes, or whether this is a grey area which still needs further research.

A second point of discussion concerns Tedeschi and Calhoun's three stage model of cognitive processing leading to PTG. The authors state that only once an individual has passed from the first stage to the last, can they experience PTG. However, it is important to question whether the process leading to growth is as linear as it is outlined, or whether it may have a cyclical nature to it where individuals oscillate between the stages before experiencing growth. This would have implications for clinicians treating survivors of terrorist attacks who would consider making allowances for clients to move through the stages at their own pace, rather than a pre-defined pace. The authors also state that PTG is both an outcome and a process. Again, this leads one to question whether growth is a final state, or a dynamic process that one can continually be engaged in throughout their lifetime.

A debate currently ongoing is whether growth following adversity represents genuine or illusory change, perceived or actual growth. Several studies from the current review brought this to light, by noting that PTG was a cognitive attempt to make sense of the attack or a coping mechanism to deal with the distress that followed (Blix et al., 2013; Butler et al., 2005; Bayer-Topilsky et al., 2013; Hall et al., 2010; Birkeland et al., 2015. Hall et al. (2010) also stated that actual growth only takes place when the revised positive cognitions are translated into action. These explanations challenge Tedeschi and Calhoun's theory, which states that growth following trauma is a genuine change, not an illusion. They

further declare that actual growth and distress can coexist in an individual as they are separate elements of the trauma experienced. This debate has important implications for understanding how an individual experiences growth, whether the process of growth involves more cognitive or behavioral components to it, or whether it is holistic, involving many aspects of a person's being. Further research is needed in this area to provide more clarification on this.

4.1 Limitations

One limitation is that not all studies examined the same factors, which made it difficult to conduct a complete comparison of all factors across the studies. Second, the context of the terror attacks differed in many of the studies, limiting generalizability. Third, using the PTGI cross-culturally may not have given accurate results as cultural differences in experiencing and expressing trauma may have influenced the outcome. Fourth, including qualitative and quantitative studies, of differing designs, limits the ability to compare across the studies. Fifth, self-reporting of the PTGI may introduce biases, and completing them at different time points may yield varied results.

4.2 Conclusion

The findings of the review have helped to highlight factors that positively influence the experience of PTG following direct exposure to a terrorist attack. Several, largely consistent reports of particular factors, such as PTS and gender, have important clinical implications. Researchers, and especially, clinicians can be aware of these when working with survivors of terrorism to assist them with the healing process. The differences in the findings regarding the six themes bring to light the need for further research in several areas including how different types of exposure influence PTG, whether individuals experience growth as a linear, dynamic or other process and whether growth is actual or perceived.

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* Starred articles indicate those included in the current review.

Appendix A

Specifically, five articles did not measure post-traumatic growth (Dickstein et al., 2012; Littleton, Axsom, & Grills-Tauechel, 2009; Ai, Cascio, Santangelo, & Evans-Campbell, 2005; Schueller, Jayawickreme, Blackie, Forgeard, & Roepke, 2015; Berant, & Pizem, 2015), two did not include a focus on posttraumatic growth (Nelson, 2011; Kastenmuller, Greitemeyer, Epp, Frey, & Fisher, 2012); one study examined posttraumatic growth as it related to war, not terrorism (McLean, 2013), another examined posttraumatic growth as it related to genocide and not terrorism (Williamson, 2014), and another article focused more on forced settler disengagement in Gaza than on the terrorist attacks that took place there (Hall et al., 2008). Additionally, six studies did not measure direct exposure to terrorism (Steger, Frazier, & Zacchanini, 2008; Meisenhelder & Marcum, 2009; Hobfoll, Tracy, & Galea, 2006; Park, Riley, & Snyder, 2012; Rimé, Páez, Basabe, & Martínez, 2010; Park, Aldwin, Fenster, & Snyder, 2008), two did not investigate posttraumatic growth in the context of terrorism (Pat-Horenczyk, & Brom, 2007; Val, & Linley, 2006) and one did not meet the age criteria (Levine, Laufer, Stein, Hamama-Raz, & Solomon, 2009). One further study was unable to be retrieved (Ai, Tice, Lemieux, & Huang, 2011). It was requested but not received in time for this review.

Appendix B

Data Extraction Forms

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Hirsch and Lazar (2012)	To examine processes of coping and PTG as reflected in narratives of mothers of young children exposed to rocket attacks in Israel for long- and short-term periods.	52 mothers aged 27- 50 years With children under 18yrs living at home and who resided in Western Negev for at least 8 years. (2004).	Qualitative - Narrative	Rocket attacks in Negev, Israel for 8 years.	Open ended questionnaire, and in-depth interviews.	N/A	Only mothers exposed to long term terror attacks reached the stage of Meaningfulness in growth, and gained new understandings and insights.	Small sample size could not be considered representative of the population. The mothers' descriptions of growth may be a positive illusion justifying their decision of living in a dangerous area.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Konvisser (2013)	To examine narratives of persons directly involved in politically motivated violence, including a focus on identifying themes predictive of resilience and PTG.	19 adult Israeli survivors of suicide bombings or shootings of civilians between 2001-2003. 18 Jews, 1 non-Jew, 9 females, 10 males, aged 22-63 yrs. Mean age 42 yrs.	Qualitative-Narrative	Suicide Bombings/ shootings of civilians during Second Intifada.	Questionnaires and in-depth Interviews..	N/A	The study found twelve themes of resilience and growth which characterized those who experienced PTG.	Small sample size limits generalizability. Focus on participants who only experienced positive outcome also limits generalizability of findings.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
McCormack and McKellar (2015)	To examine experiences of change of an adult, male survivor of 2005 Bali bombing, at 2 and 7 years post event.	60 yr old, British male holidaying in Bali with his family at the time of the bombing.	Qualitative longitudinal case study.	Suicide bombing.	Semi-structured interviews.	N/A	The super-ordinate theme of vigilance and anger was key in facilitating growth. Purposeful rumination also triggered growth in the participant.	Study is open to subjective interpretation and biases of the researcher's own experiences and understandings.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Blix, Birkeland, Hansen and Heir (2014)	To investigate the relationship between centrality of event (COE) and PTG after the 2011 Oslo bombing.	229 participants. 87 males, 142 females, all employees of Norwegian ministries, present at work when bombing took place.	Quantitative-longitudinal.	Car bomb explosion	Web-based questionnaires; The Centrality of Events Scale (CES) to measure the degree the event is integrated into one's life and identity. The Post-traumatic Growth Inventory – Short Form (PTGI-SF). The Post-traumatic Check List-Specific (PCL-S) to assess PTSD symptoms.	CES internal consistency with participants was $\alpha=.92$ for T1 data, and $\alpha=.94$ for T2. Validity of CES not reported but an article by Berntsen and Rubin (2006) was noted indicating construct validity and high consistency with related measures indicating convergent validity among a large sample of undergraduate students. PTGI-SF internal consistency for participants was .89 for T1 data and .89 for T2 data. PTGI-SF validity for participants not reported. Another article (Cann et al., 2010) reported reliability with a large sample of adults. The internal consistency for the PCL-S study was $\alpha=.95$ for T1 data	Significant relationship between COE and PTG at 1 and 2 years post bombing which significantly weakened over time. No time-lagged effect of COE on PTG was seen. Instead, levels of PTG and CES remained stable over time.	Use of self-report questionnaire measuring perceived growth involved memory which is emotion-influenced and can create bias. Thus, the responses on PTGI may not be totally accurate.

						<p><u>Reliability/Validity</u></p> <p>and $\alpha=.95$ for T2 data.</p> <p>Validity of the PCL-S for this study not reported.</p> <p>Content validity demonstrated by measuring PTSD symptoms from the DSM-IV.</p>		
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Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Hall, Hobfoll, Canetti, Johnson, Palmieri and Galae (2010)	To study constructs related to PTG, and to look at the relationship between PTG and PTS symptoms.	806 Israeli adults exposed to terrorism at the end of the 2006 Israeli Hezbollah war. Sample included both genders.	Quantitative, Cross sectional.	Israeli-Hezbollah war.	Conservation of Resources Evaluation (COR-E) to measure PTG. PTSD Symptom Scale (PSS) to measure PTS symptoms.	Reliability and validity of COR-E noted in previous study (Hall & Hobfoll, 2008) through high correlations ($r=.85$) with Tedeschi and Calhoun's (1996) PTGI. Cronbach's alpha for COR-E for this study was $\alpha=0.75$. Internal consistency of PSS was $\alpha=.91$. The PSS measures PTSD symptoms according to DSM-IV criteria. PSS validity not reported but content validity is demonstrated by measuring PTSD symptoms from the DSM-IV.	Predictors of PTG included being female, having lower education, being exposed to greater recent terrorist attacks, greater loss of psycho-social resources, having greater social support and greater self-efficacy. PTG was a constant predictor of PTS.	Causality not determined as study was cross-sectional. Study took place immediately after the war, so beneficial aspects of PTG may not have yet occurred. Phone surveys may not have captured full extent of growth. Findings cannot be generalized to populations exposed to ongoing terror.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Blix, Hansen, Birkeland, Nissen and Heir (2013)	To investigate the relationship between trauma-exposure, peri-traumatic reactions and PTG. Also, to examine whether perceived growth was associated with less psychological problems, less impairment in daily functioning and higher life satisfaction after trauma.	197 adult survivors of 2011 Oslo Bombing attack. 78 men, 119 women. Mean age was 44.8 yrs. All were Norwegian ministries employees and present during the attack.	Quantitative. Cross Sectional.	Car bomb explosion	Post-traumatic Growth Inventory-SF (PTGI-SF). Post-traumatic Check List-Short Form (PCL-S).	PTGI-SF internal consistency was $\alpha=0.89$. PTGI-SF validity not reported. In the present study, Cronbach's alpha for PCL-S was $\alpha=0.95$. PCL-S validity for this study not reported. However, content validity appears to be demonstrated by measuring PTSD symptoms from the DSM-IV.	Results showed higher levels of trauma-exposure and immediate reactions, as well as being female were significantly related to PTG. Further, PTG was associated with higher symptom levels of post-traumatic stress. No association between perceived growth and work and social adjustment was found. However, perceived growth was associated with a higher level of life satisfaction.	Assessing trauma exposure through number of traumatic episodes experienced/ witnessed is limiting as different episodes can have different impacts on different people. Data was collected 9-10 mths after traumatic event, so relationship between growth and health out-comes over time is unclear. Self-report questionnaire used for growth, so responses can be influenced

								<p><u>Study limitations</u></p> <p>by emotions. Thus, answers may reflect actual growth or cognitive biases.</p>
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Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Butler et al. (2005)	To examine possible cognitive, coping and trauma symptom predictors of PTG following Sept 11, 2001 attacks.	1505 participants, mean age 44.69 yrs. 77.1% female, 92.1% white. Participants were affluent, well-educated. 87 (10.9%) had in-person exposure to the attack.	Quantitative-longitudinal.	9/11 terrorist attacks.	Post-traumatic Growth Inventory (PTGI). PTSD Check List-specific (PCL-S). Changes in Outlook Questionnaire (CIO).	Internal consistencies for the five PTGI subscales were 0.8-0.91. PTGI validity in this study not reported. However, the article noted another study by Tedeschi and Calhoun (1996) where PTGI showed good internal consistency, and acceptable test-retest reliability, construct convergent, and discriminant validity. For present study, PCL-S Cronbach's alpha was $\alpha=0.91$. PCL-S validity not reported. Content validity was demonstrated by measuring PTSD symptoms from the DSM-IV. CIO Cronbach's alpha was $\alpha=0.85$. CIO validity not reported. However, the article reported another study by	Initial PTG levels associated with higher trauma symptoms, more positive changes in worldview, higher use of denial as an early coping strategy. Also, curvilinear relationship found between trauma symptoms and PTG. PTG declined over time except Spiritual Change. PTG levels at 6.5 months post-attacks were primarily predicted by initial PTG levels. Additionally, younger age, nonwhite ethnicity, female gender, less education and lower levels of behavioral disengagement were significantly associated with a majority of growth outcomes.	Findings cannot be generalized nor used as being representative of a specific population, as convenience sampling was used. Low response rate may have non-response bias in sample. Use of self-report measures involves recall, which could have led to cognitive bias.

						<p><u>Reliability/Validity</u></p> <p>Joseph et al. (2005) which indicated the scale showed satisfactory internal reliability, convergent and discriminant validity.</p>		
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Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Bayer-Topilsky, Itzhaky, Dekel and Marmor (2012)	To investigate negative and positive trauma outcomes among civilians exposed to ongoing terror. Specifically, relationships between exposure and human resources to PTS, distress, and PTG, and the relationship between PTS and PTG.	195 adult Israeli male students between 18-34 yrs exposed to terror. 35% directly exposed, 66% exposed through a family member, 43% through friends.	Quantitative, Cross sectional	Civilians exposed to ongoing terror in Israel.	Hebrew versions of: a) Subjective Perceptions of Exposure to Terror b) PTSD inventory c) Post Traumatic Growth Inventory (PTGI).	Cronbach's alpha for Subjective Perceptions of Exposure to Terror measure was $\alpha=0.75$. Validity of this measure not reported. Internal consistency of PTSD inventory was $\alpha=0.84$. Validity of this inventory not reported. However, content validity is demonstrated by measuring PTSD symptoms from the DSM-IV. PTGI internal consistency was $\alpha=0.94$. PTGI validity not reported. However, article reported another study (Calhoun & Tedeschi, 2004), showing the scale demonstrated satisfactory internal reliability and convergent and discriminant validity.	Only objective exposure to terror via family is linked positively and directly to PTS and PTG. Conversely, subjective exposure was positively related to PTG only when such exposure was accompanied by PTS. PTS was positively related to PTG. Further, none of the resources (mastery, social support, self-esteem) examined were significantly related to PTG.	Data was collected while the events were on-going, so possible that findings reflect a temporary state of growth. Homogeneous group so results cannot be generalized to other populations.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Dekel and Nuttman-Shwartz (2009)	To examine the relationship between post-traumatic stress and PTG among two Israeli communities exposed to Qassam rocket attacks. Also, to examine the contribution that levels of exposure, cognitive appraisal, and a sense of belonging to the country make to PTS and PTG.	122 residents of Western Negev, Israel. 67 living in Kibbutzim (rural) and 67 in Sderot (urban). 53% male, aged 18-76.	Quantitative, Cross sectional	Israeli communities exposed to Qassam attacks.	Cognitive Appraisal Questionnaire (assesses participants' perceptions of Qassam rocket attacks, as either a threat or challenge). The Post-traumatic Growth Inventory (PTGI). The Post-traumatic Stress Disorder Inventory (measures symptoms on the basis of the DSM-IV).	Internal consistency for threat perception on the Cognitive Appraisal Questionnaire was $\alpha=0.91$ and for challenge perception was $\alpha=.63$. Validity for this scale was not reported. Internal consistency of Post-traumatic Stress Disorder Inventory used in the present study was $\alpha=0.89$. Validity for this scale for this study was not reported. However, the article reported another study by Solomon et al. (1993), showing scale had high convergent validity. The internal consistency for PTGI was $\alpha=0.97$. Validity of PTGI for this study was not reported.	Sderot residents reported more PTG than Kibbutz residents. Further, the association between PTS and PTG was positive and threat appraisal significantly contributed to PTG. No relation was found between gender, education or level of exposure to PTG. The variable of 'sense of belonging' resulted in higher PTG in both communities.	Sderot sample size not fully representative, limits generalizability of findings. Differences in social resources (eg. Competency, family support), which could impact coping and adjustment were not examined in either community.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Kiran, Rana and Azhar (2010)	To examine the relationship of demographic characteristics and symptoms of PTSD and PTG.	52 male workers of Ordinance Factory in Northern Pakistan, survivors of a 2008 suicide bomb attack. Average age was 36.69 yrs. Most were married and lived in joint families. 40% earned between Rs. 5000-9900 and 39% had studied to matriculation level.	Quantitative, Cross sectional.	Suicide bombing, Northern Pakistan.	Urdu translated versions of: The Impact of Event Scale-Revised (IES-R), (measured how a stressful event affects an individual, and provides current levels of subjective distress including PTSD symptoms). Post Traumatic Growth Inventory (PTGI)	Reliability and validity of the IES-R are not reported. However, the article cites another study, Daniel et al. (1995), which notes that the IES-R demonstrates good reliability and validity. Reliability and validity of the PTGI are not reported. However, the article reports a previous study by Tedeschi and Calhoun (1996) which shows good internal consistency, and acceptable test-retest reliability, construct, convergent, and discriminant validity for this measure.	Findings showed positive, statistically insignificant relationship between PTG and PTSD. Also, demographics impacted PTG levels, where younger, married men showed higher PTG. Occupational support may have also contributed to PTG. Results showed no significant relationship between income levels and PTG.	Small, homogenous sample limits true representativeness of a trauma sample. Cultural components (religiosity, ethnic backgrounds etc.) potential contribution to PTG overlooked. Psycho-social support and interventions to the survivors may be a confounding variable, exaggerating PTGI scores.

Article Author(s)	Aims/Purpose of the study	Participants	Study design	Context/ Nature of terrorist attack.	Measures Used (Relevant to the review question)	Reliability/Validity	Results/Findings	Study limitations
Birkeland, Hafstad, Blix and Heir (2014)	To identify subgroups with different patterns of post-traumatic reactions after trauma, and to determine whether these subgroups differed in terms of physical proximity to the bomb, personal and social resources, and indicators of adjustment.	1970 employees of 14 Norwegian ministries participated. Data collected 10 months after the Oslo bombing. 1133 women, 837 men.	Quantitative, Cross sectional.	Suicide bomb explosion	PTSD Checklist specific (PCL-S). Post-traumatic Growth Inventory-Short form (PTGI-SF).	Internal reliability of sub-scales of PCL-S ranged from $\alpha=0.87-0.97$. Validity for PCL-S not reported. However, the article reported another study by Hem, Hussain, Wentzel-Larsen and Heir (2012) which showed the Norwegian version of the PCL-S performed well as a diagnostic instrument for detecting PTSD, showing evidence of diagnostic validity. Internal reliabilities of the five subscales of the PTGI-SF ranged from $\alpha=0.61-0.82$. Validity of PTGI for this study was not reported.	Individuals who were both physically proximate and not physically proximate reported "High stress/high growth," and "Low stress/high growth" experiences. Further, "Low stress/low growth" was found only in the not physically proximate group. Thus, physical proximity is not necessary to experience PTG. Additionally, results showed a positive linear relationship between PTS and PTG among the "High stress/High growth" and "Low stress/Low growth" groups, and a non-linear relationship in the "Low stress/High growth" group.	Low response rate may not give actual results. Further, since this was not a longitudinal study, causality could not be determined. Self-evaluations of PTG may be memory biased.

Appendix C

MMAT Quality Appraisal of Qualitative Articles

Article Author(s)	Sources of qualitative data relevant to research question?	Analysis of data relevant to research question?	Appropriate consideration to how findings relate to context?	Appropriate consideration to how findings relate to researchers' influence?
1) Hirsch and Lazar (2012)	Yes	Yes	Yes	Yes
2) Konvisser (2013)	Yes	Yes	Yes	Yes
3) McCormack and Mckellar (2015)	Yes	Yes	Yes	Yes

MMAT Quality Appraisal of Quantitative Articles

Article Author(s)	Participants recruited to minimize selection bias?	Appropriate measures used?	Participants comparable within groups/ sub-groups?	Acceptable response rate ($\geq 60\%$)?
4) Birkeland, Hansen and Heir (2015)	Yes	Yes	Yes	Yes
5) Hall et al. (2010)	Yes	Yes	Yes	42% (The article noted that this rate compared favorably with studies in the United States (Schuster et al., 2001) and Israel (Hall et al., 2003)).
6) Blix, Hansen, Birkeland, Nissen and Heir (2013)	Yes	Yes	N/A	57.6%
7) Butler et al. (2005)	Yes	Yes	N/A	Yes
8) Bayer-Topilsky, Itzhaky, Dekel and Marmor (2013)	Yes	Yes	N/A	Can't Tell (Initial number of questionnaires distributed not indicated)

9) Dekel and Nuttman-Shwartz (2009)	Yes	Yes	Yes	Yes
10) Kiran, Rana and Azhar (2010)	Yes	Yes	N/A	Yes
11) Birkeland, Hafstad, Blix and Heir (2014)	Yes	Yes	Yes	56%

Part B: Research Report

Post Traumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community

Abstract

Mental health and well-being have both been shown to be greatly affected by the impact of terrorism. Sadly, reports of global terrorism indicate that incidents are on the rise and the rippling effects it has on individuals, communities and nations are devastating. However, new research has emerged which points to the evidence of growth and the capacity for positive change following tragedy, and most empirical studies have referred to this phenomenon as post-traumatic growth (PTG). While most studies have noted that survivors of terrorist attacks do experience PTG, none have examined this phenomenon among survivors of the Westgate Mall terrorist attack which took place on 21st September 2013 in Nairobi, Kenya. The purpose of the current study, therefore, was to explore the experiences of recovery for adult, Ismaili survivors of the Westgate attack and to understand how the survivors made meaning of their experiences following the attack. Six participants were individually interviewed about their experiences using a semi-structured interview topic guide and the data was analyzed using the Interpretive Phenomenological Analysis (IPA) approach. Five super-ordinate themes and twelve subordinate themes emerged from the analytical process across the six interviews. The findings suggested that Ismaili adult survivors of terrorism can largely experience positive changes following an attack but are also able to experience negative changes. Based on these findings, clinical implications, suggestions for further research and limitations are discussed.

1. Introduction

On 21st September 2013, the world watched with horror as a group of four to six Al-Shabaab gunmen stormed Kenya's high-end Westgate Mall in Nairobi and fired at weekend shoppers, killing over 70 people. Countries including the United Kingdom, the United States, Canada, Australia, New Zealand, India, Uganda and Ghana all confirmed that their citizens were among those affected (Agbiboa, 2014). By the end of the siege, at least 67 civilians and six security officers were reported dead, and over 175 people injured. As the shock of the attack rippled throughout the country, it sunk deep into the hearts of families and communities of all those affected. The attack's immediate destructive effects, the wider danger it implied, and its cultural and economic shock challenged the nation. In the midst of all this, however, Kenyans faced the task of coming to terms with what had happened, to find meaning in the tragedy that could help them integrate the experience into their national and personal narrative (Nantulya, 2013).

A significant amount of research has shown that people can experience positive changes following trauma, and most studies have referred to this phenomenon as post-traumatic growth (PTG) (Blix, Hansen, Birkeland, Nissen, & Heir, 2013; Tedeschi & Calhoun, 2004). However, research on PTG and terrorism is recent, and therefore, there are limited studies available in the Kenyan context and no study to the researcher's knowledge has specifically investigated PTG and the Westgate Mall terror attack. In line with this, the present study explored survivors' experiences of PTG in the aftermath of the Westgate Mall terror attack, with a focus on a minority religious community known as the Shia Ismaili Muslims.

1.1 Trauma, Terrorism and Mental Health

Trauma has been described as the result of an overwhelming amount of stress that exceeds an individual's ability to cope or integrate the experience into their cognitive framework. A significant amount of research conducted on traumatic experiences have reported the impact that these experiences have on people (Canetti, Hall, Rapaport, & Wayne, 2013; Danieli, Brom, & Sills, 2005; Poulin, Silver, Gil-Rivas, Holman, & McIntosh, 2009). Specifically, the negative emotions that are experienced during the traumatic event itself, the pathological post-trauma syndromes that might follow, such as post-traumatic stress disorder (PTSD), as well as other psychiatric disorders and possible substance abuse

that often develops from these syndromes have been well documented (Gerrish, Dyck, & Marsh, 2009). Furthermore, research has extensively studied the impact of trauma on several different types of traumatic events, one of these being terrorism.

The mental health, stability and well-being of individuals have all been shown to be greatly affected by the impact of terrorism. Drastic changes in cognition, emotion and behavior that accompany the experience have also been investigated (Pat-Horenczyk & Brom, 2007). Research has further shown that overall, both direct and indirect exposure to terrorism have been associated with psychological distress (Danieli et al., 2005; Hobfoll, Canetti-Nisim, & Johnson, 2006). Other studies have looked at the psychological effects of exposure to terrorist activities and have linked the trauma of terrorism exposure to panic disorders, depressive symptoms and even more so to PTSD. The symptoms of PTSD include re-experiencing of the event, avoidance of any reminders of the event and experiencing hyper-arousal among others (Yehuda, 2002).

Interestingly, new research has emerged which points to evidence of growth and the capacity for positive change through adversity and tragedy. For instance, evidence increasingly suggests that perceiving benefits following a traumatic experience can promote well-being and positive adjustment (Durkin & Joseph, 2009; Joseph & Butler, 2010; Joseph & Linley, 2006). Tedeschi and Calhoun (2004) have conducted significant research in this area, and their studies have indicated that an illness or loss in the family, a community disaster, or a national crisis can produce both positive and negative changes. While a variety of terms have been used by researchers to describe this phenomenon of positive change, most empirical studies refer to it using Tedeschi and Calhoun's term of Post-Traumatic Growth (PTG) (Pat-Horenczyk & Brom, 2007). In line with this, the current study will also adopt this same term.

1.2 Post-Traumatic Growth (PTG)

1.2.1 Defining PTG.

Interest in Tedeschi and Calhoun's (1996) conceptualization of PTG has grown over the years and is widely used by researchers when measuring growth. Tedeschi and Calhoun define PTG as "positive psychological change experienced as a result of struggles with

highly challenging life circumstances” (Tedeschi & Calhoun, 2004, p.76). In addition, the authors mention some important conditions and assumptions that underlie PTG. First, PTG appears to focus primarily on incidents of major crises. Second, it relates to positive life transformations which are unrelated to experiencing illusions or positive thinking. Third, PTG is experienced as an ongoing process or an outcome of trauma, and is therefore not viewed as a strategy to cope with trauma. Fourth, that PTG can co-exist with distress and it requires a shattering of existing schemas or a significant threat for growth to take place (Calhoun & Tedeschi, 2001).

Further, Tedeschi and Calhoun’s (2004) model of cognitive processing outlines the processing of trauma leading to PTG in three stages. The first being comprehensibility, followed by manageability and finally meaningfulness. In the first stage, the person tries to understand what has happened which involves rumination or experiencing intrusive and automatic recurrent thoughts. In the second stage the person tries to manage the automatic rumination and distressful emotions in constructive ways such as sharing their experience with supportive others, journaling and seeking professional help like counselling. If manageability is even moderately successful, then the third stage of meaningfulness takes place where more deliberate and reflective rumination is engaged in by individuals to find meaning from the event and adapting their schemas to the new reality. Individuals attempt to restructure their narrative by integrating the unpleasant incident within it, which leads to PTG (Tedeschi & Calhoun, 2004).

It is important to note that Tedeschi and Calhoun’s (2004) model is not the only theory to explain the process leading to PTG and several others exist. For example, the Conservation of Resource theory (COR) also focuses on PTG (Hobfoll, 2002). Specifically, this theory posits that psychological distress is experienced when there is a loss of resources of valued persons, objects, or energy resources in one’s life, especially when individuals need those resources to be able to handle their internal and external stresses and to help in their adjustment. This is considered to be pivotal to the process of stress. For example, with traumatic stress, resource losses are rapid and the individual’s ability to replenish these resources are reduced considerably by the nature of the circumstances and time which leads to stress (Kaniasty & Norris, 1993; Norris & Kaniasty, 1996).

Further research by Hall et al. (2008) and Hobfoll et al. (2007) state that the benefits of PTG can only be experienced if it is accompanied by some action. This led to the action-focused growth theory on PTG. Contrary to Tedeschi and Calhoun, Hobfoll et al. (2007) theorize that PTG is a real experience which can alleviate psychological distress only, if it is associated with a behavioral component. For example, in their study, Hall et al. (2008) noted that people who took positive social actions during the Gaza disengagement phase and the West Bank, and interpreted these actions as growth, were more likely to develop PTG. Thus, while Tedeschi and Calhoun emphasize the cognitive component in experiencing PTG, Hobfoll and Hall underline the need for the behavioural component, in addition to the cognitive one, to experience PTG. In yet another theory, Maercker and Zoellner (2004) theorized that PTG could have a self-deceptive or illusory side that is related to psychological distress as well as the existence of a self-transcendent side related to less psychological distress. Together, these two sides became known as the Janus-Faced Model of PTG (Maercker & Zoellner, 2004). These debates, of how PTG can be experienced and whether action is a central part of growth, is still ongoing and current investigations continue to better understand this phenomenon. Although action-focused theory is gaining momentum, empirical research still largely supports Tedeschi and Calhoun's theory of cognitive processing for growth to take place (Joseph and Butler, 2010).

A fifth comprehensive theory on PTG developed by Stephen Joseph and P. Alex Linley (Joseph & Linley, 2006), is termed the Organismic Valuing Theory (OVT). Central to this model is the organismic valuing process which indicates the possibility of three cognitive outcomes to the psychological resolution of trauma-related difficulties. First, that experiences are assimilated, resulting in a return to pre-trauma baseline levels, where the person's distress is lowered, but is also left vulnerable to future traumatic experiences. Second, experiences are accommodated in a negative direction, which means that the person is likely to experience psychopathology and distress. Third, experiences are accommodated in a positive direction, which then leads to growth since the person has developed and evolved their world view considering the new traumatic information (Splevins, Cohen, Bowley, & Joseph, 2010). Although research has been conducted on these five theories, Tedeschi and Calhoun's (2004) model is still the most widely used and

accepted by the current researchers (Jospheh & Butler, 2010). It is also considered the most comprehensive model of PTG (Jospheh & Linley, 2006), and thus, for the current research, Tedeschi and Calhoun's (2004) model will be used.

In further elaboration of this model, Tedeschi and Calhoun's conceptualization of PTG incorporates five main domains of growth. The first is experiencing an increased appreciation for life and a change in priorities, the second is cultivating closer and more meaningful relationships with others and the third is experiencing an increased sense of personal strength. The fourth is where the individual is able to identify new possibilities in their life and move on, and the fifth is experiencing growth in spiritual or existential matters such as feeling a new closeness to God (Tedeschi & Calhoun, 1996). Tedeschi and Calhoun (1996) also designed the Post Traumatic Growth Inventory (PTGI) as an instrument to measure these five dimensions of growth. The PTGI measures the degree of positive changes after trauma, and has been shown to have good internal consistency, convergent and construct validity, is discriminant and shows good test-retest reliability. In their report, Palmer, Graca and Occhietti (2012) state that the PTGI is a valid and reliable tool for measuring growth in populations of different cultural backgrounds, including Malaysian, Japanese, Bosnian, American and Spanish, as well as for different ages such as adults, adolescents and children following a traumatic experience.

A point to note is that since growth is experienced differently by each individual, it may also occur at different times, degrees, and in different dimensions for each individual (Taku, Cann, Calhoun, & Tedeschi, 2008). Therefore, variations of this model may exist for different individuals (Tedeschi & Calhoun 2006). It is also important to note that the PTGI is not the only instrument to measure PTG. Other measures have been developed, among the most prominent including Hall et al.'s (2010) Conservation of Resources - Evaluation scale, Antoni et al.'s (2001) Benefit Finding Scale (BFS), and Armeli, Gunthert, and Cohen's (2001) Stress-Related Growth Scale-Revised (SRGS-R) (Helgeson, Reynolds, & Tomich, 2006). The Conservation of Resources - Evaluation scale outlines growth in three main domains including self-perception, interpersonal relationships, and philosophy of life. This measure has demonstrated a high correlation with the PTGI, which indicated that these two scales measure highly similar constructs (Hall et al., 2010). The BFS outlines growth in the domains of acceptance of life's imperfections and becoming more cognizant of the role

of other people in one's life (Antoni et al., 2001). Lastly, Armeli et al.'s (2001) SRGS-R scale measures growth across seven domains including treatment of others, religiousness, personal strength, belongingness, affect-regulation, self-understanding and optimism. Although these measures have been cited in other research, the most widely used and researched construct is the PTGI (Helgeson et al., 2006).

1.3 Research on PTG and Traumatic Events

Linley and Joseph (2004) conducted a review of 39 studies and indicated that positive change is reported in approximately 30-70% of survivors of different traumatic experiences. Some of these events include plane crashes, car accidents, hurricanes, earthquakes, combat, child abuse, cancer, heart attack, HIV/AIDS, and other life experiences such as parental divorce, bereavement and immigration.

1.3.1 PTG and terrorism.

In a 2004 United Nations Security Council conference, terrorism was defined as:

“any action that is intended to cause death or serious bodily harm to civilians or non-combatants, when the purpose of such an act...is to intimidate the population, or to compel a government or an international organization to do or to abstain from doing any act.” (*A More Secure*, 2004, pg. 65).

Further, Vázquez, Pérez-Sales and Hervás (2008) state that the impact of terrorism on individuals and communities is devastating and often frightens and traumatizes the civilian population.

A review of the research on PTG and terrorism indicates that some of the earlier studies began soon after the September 11th, 2001 terror attack in the US. The attack shook Americans, as well as others affected by it, and challenged them to create a new sense of ‘normal’, ‘safety’, and of ‘self’ while learning to live with the trauma of the attack. However, in addition to reported high levels of distress following the attack, national polls reported that Americans experienced a variety of positive outcomes from dealing with the attacks, such as re-examining their life priorities and feeling closer to their families (Danieli et al., 2005). The September 11th attack also created an unprecedented surge of interest in the fields of trauma and terrorism, and numerous researchers, particularly in the field of psychology, began conducting empirical studies on various aspects of the attack.

Research focusing on both indirect and direct exposure to terrorist attacks in Western

contexts have largely shown evidence of PTG. For instance, regarding indirect exposure, a study conducted by Butler et al. (2005) investigated the cognitive, coping, and trauma symptom predictors of PTG in the context of the September 11th terror attacks in an internet sample largely comprising of individuals indirectly exposed to the event. The findings indicated that PTG was indeed reported in the first few months following the attack, and was associated with higher levels of positive changes in worldview. Additional research on PTG in the context of the September 11th attacks on university students who were also indirectly exposed to the attacks has further supported these findings (Fredrickson, Tugade, Waugh, & Larkin, 2003). Further, researchers such as Val and Linley (2006), found that Madrid residents who were indirectly affected by the 2004 train bombings reported experiencing PTG and other positive changes through demonstrations and social changes. Also, Linley, Joseph, Cooper, Harris and Meyer (2003) found evidence of PTG in British citizens who were vicariously exposed to the September 11th attacks through television viewing.

Limited research has also indicated a weak relationship between PTG and terrorism (eg. Laufer & Solomon, 2006). For example, Milam, Ritt-Olson, Tan, Unger and Nezami (2005) conducted a study among an ethnically-diverse American adolescent sample indirectly exposed to the September 11th terrorist attacks. The findings showed that the majority of the sample showed neutral-mild levels of PTG. The authors noted that the ethnic diversity might have explained this, as a large number of Iranian-American participants reported neutral PTG scores, since the larger, negative implications from the terrorist attacks for these participants would have been greater than for other ethnic groups.

Interestingly, it also appears that individuals can experience both positive and negative changes following terrorism exposure. For example, Butler et al. (2005) and Val and Linley (2006) found associations between PTG and post-traumatic stress in their samples. This relationship has been observed more evidently among populations directly exposed to terrorism. For example, a study by Blix et al. (2013) conducted in Oslo after the 2011 bomb attack, examined perceived PTG among 197 employees of the ministry who were at work during the attack. The results showed that while perceived PTG was significantly related to higher levels of life satisfaction, it also showed that PTG was associated with elevated levels of post-traumatic stress. However, in Butler et al.'s (2005) longitudinal study, the

results also showed that six months later, higher PTG was associated with lower post-traumatic symptoms. The authors explain these findings by suggesting that trauma symptoms represent attempts to cognitively understand the traumatic event, especially in the early stages, and that this was needed to precipitate growth.

Research has also shown a link between PTG and terrorist attacks in different age groups among U.S. nationals indirectly exposed to terrorism. For instance, American adolescents have been shown to experience personal growth in areas including positive changes in themselves and others, as well as increased interpersonal closeness, interest in world events, and patriotism following indirect exposure to the September 11th attacks (Pfefferbaum, North, Pollio, Wallace, & Jeon-Slaughter, 2006). These findings are consistent with other studies conducted among American college students (DeRoma et al., 2003) as well as in children after the September 11th terrorist attack (Fairbrother, Stuber, Galea, Fleischman, & Pfefferbaum, 2003; Hoven et al., 2005) and school-aged children who lost their parents in the 1995 Oklahoma City Terrorist Bombing (Pfefferbaum, Call, & Sconzo, 1999).

1.3.2 Meta-Analyses on PTG and terrorism.

From the literature search, three meta-analyses were found examining PTG and terrorism. The first, a review of five studies, suggested that positive outcomes of PTG occur only when cognition is translated in action, an experience the researchers called action-focused growth (Hobfoll et al., 2007). The authors stated that cognitive restructuring without turning it into action may only be perceived growth, whereas when cognition is transformed into action, it becomes actual growth. In the second meta-analysis, results from 87 cross-sectional studies reported in 77 articles revealed that while PTG was related to lower levels of depression and greater positive well-being, it was also related to increased avoidant and intrusive thoughts related to the stressor (Helgeson et al., 2006). The third review examined four studies on terrorism-related PTG in Israel and showed that greater PTG was related to PTSD symptoms severity, exposure to terrorism, and the loss of psycho-social resources. The analysis also supported the theory that PTG occurs only when it is demonstrated in action (Hall et al., 2008). Although these analyses provide useful information on PTG as studied across a broad range of investigations, one limitation is that the analyses all report different findings regarding PTG. Secondly, different measures

assessing different dimensions of PTG were used in the studies, leading to difficulties in drawing conclusions. Third, the most recent meta-analysis was published in 2008, which would not include studies with new findings published more recently.

1.3.3 PTG and terrorism in non-Western contexts.

A search on studies focusing on PTG and terrorism in non-Western contexts largely included samples directly exposed to terrorism, with some including both direct and indirect exposure. The studies largely supported the finding that PTG can be experienced following exposure to terrorism, and further, that PTG can co-exist with post-traumatic stress. For instance, Hobfoll et al. (2007) examined the level of post-traumatic symptoms, terrorism exposure and the perception of PTG, among Israeli Jews and Arabs during the Al Aqsa Intifada, and found that while PTG was experienced among this population, greater PTG was also linked to greater post-traumatic symptoms. Laufer and Solomon (2006) found similar results among a large sample of Israeli adolescents exposed to terrorism, where PTG was mildly experienced, but also related to greater psychological distress. McCormack and McKellar (2015) also found evidence of a relationship between PTG and post-traumatic stress following the 2005 Bali bombing. These findings are significant and appear to emerge more strongly among studies examining samples directly exposed to terrorist attacks. The findings do not imply that the negative experiences outweigh the positive, but rather, support the idea that to a certain degree, people feel shaken by a traumatic experience and this triggers changes in themselves and in their lives (Vasques, Perez-Sales, & Hervas, 2008).

Other studies conducted in Israel have examined predictors of PTG and its relationship to psychological well-being in national Israeli samples exposed to ongoing terrorism and recent war and found that PTG was associated with being female, having lower education, greater recent terrorism exposure and greater social support (Hall et al., 2008, 2010). Studies supporting the experience of PTG following terrorism have also been conducted in South Asian contexts. For instance, Bhat and Rangaiah (2015) examined the effect of social support and conflict exposure on PTG among young adults who have been exposed to stressful experiences during armed conflict in Kashmir. The findings revealed that relatively high levels of PTG were found among the sample, and that perceived social support was significantly correlated with increased PTG (Bhat & Rangaiah, 2015). Another

study conducted in Northern Pakistan examined PTG among a sample of 52 individuals who survived a suicide bombing attack (Kiran, Rana, & Azhar, 2010). The study found high levels of PTG present in more than half of the survivors. These studies are significant and suggest that the experience of PTG can be observed cross-culturally.

1.3.3.1 PTG and terrorism in Africa.

Recent studies reveal that terrorism is currently on the rise in Africa. While there are several studies available on the topic of terrorism within Africa, as well as on trauma and terrorism within Africa, there appears to be a paucity of research on the concept of growth following trauma, and to the researcher's knowledge, there is only one study that focuses specifically on PTG and terrorism. This study, conducted by Gregory and Prana (2013), investigated whether PTG would measurably increase among Ivorian refugees after learning the Companion Recovery (CR) model. This model was developed as a means to help process traumatic experiences, focus on finding meaning in the experiences, and implement any positive changes. The researchers found that PTG was experienced in the Ivorian culture, which was increased by the use of the CR model. The results further demonstrated that rebuilding social structure empowered participants to reach out and influence their community in positive and meaningful ways.

1.3.1.2 PTG and terrorism in Kenya.

Like the U.S., research interest in the area of trauma and terrorism among Kenyan populations began after Kenya's first terrorist attack, the August 7th 1998 bombing of the American Embassy in Nairobi, which killed 253 and injured approximately 5,000 people. All individuals affected, their friends and relatives, and many others who witnessed the event directly or indirectly were greatly impacted. Few empirical studies have been conducted on the bombing, and within these, most have focused on crisis response and post-traumatic stress reactions (e.g., Njenga, Nicholls, Nyamai, Kigamwa, & Davidson, 2004; Njenga, Nyamai, & Kigamwa, 2003). While none have specifically examined the concept of PTG among survivors of the bombing, a review of the studies that are available will be outlined for important background information.

One of the earliest studies that investigated the effects on the bombing examined post-traumatic stress and functional impairment among 562 Nairobi school children (Pfefferbaum et al., 2003). The findings revealed that while functional impairment was

minimal, post-traumatic stress reactions to the bombing were related to the experience of previous trauma. Another study on the bomb attack involved systematically comparing mental health in two populations that were directly exposed to terrorist bombings (North et al., 2005). One was Kenyan citizens exposed to the American Embassy bombing, and the other was American citizens exposed to the Oklahoma City bombing. The results showed that prevalence rates of PTSD and major depression were similar in both populations after the bombings. In addition, symptoms including avoiding thoughts or feelings, a loss of interest and a sense of detachment were strongly associated with PTSD in both sites. However, coping responses and treatment were different in that the Nairobi participants relied more on religious support, while the Oklahoma City participants used more medical treatment, drugs and alcohol (North et al., 2005).

1.3.1.3 PTG, terrorism and the Ismaili community.

It has been estimated that Ismailis make up roughly eight percent of the Shia branch of Islam, which is approximately one fifth of the global Muslim population. For much of their existence, little was known about the Ismailis, their religious practices, and religious and educational manuscripts (see Appendix A for a brief history of the Ismaili faith). However, with increased globalization, Ismailis today are residing in over 25 different countries around the world, and despite the cultural and ethnic diversity of this community, they are bonded through their allegiance to the current Ismaili *Imam*, or spiritual leader, His Highness Prince Karim Aga Khan (see Appendix B for a brief explanation of the role of His Highness Prince Karim Aga Khan IV, and an explanation of religious terms relevant to the current study).

Investigations on the Ismailis in East Africa began in the mid-1900's focusing largely on the growth of the community in East Africa (Morris, 1956) and how they adjusted to European colonization of East-Africa (Adams, 1979, Bocock, 1971). In the late 1970's, several thousands of East-African Ismailis fled to the United Kingdom and Canada to escape persecution in neighboring Uganda. As the community faced new challenges of adjustment, forced migration, identity, so too, did empirical research begin addressing questions about the psychological and emotional impacts of migration, moldings of ethnic and cultural identities, and empowerment among the elderly population (Dossa, 1994; Dossa 1999; Emadi, 2005). Over the past two decades, new directions in the study of

Ismailis have taken place and researchers have begun to explore contemporary issues. Some of these issues have included women's education (Keshavjee, 2010), gender roles and its impact on the family (Damji & Lee, 1995), and one's self-defining identity (Virani, 2011). One study focused on an area of mental health regarding adaptation of more recent immigration (Khuwaja et al., 2007). Despite this interest, the overall number of studies on the Ismaili community are very few, and none, to the researcher's knowledge, have investigated trauma or terrorism among its members.

1.3.1.3.1 The Westgate Mall terror attack and Ismailis.

According to the Central Intelligence Agency (CIA) World Factbook (2014), Kenya's population in 2014 was documented as 45 million. Currently, over 90,000 South Asians live in Kenya (Srivastava, 2013), of which the Ismaili community comprises only 4,000. During the Westgate Mall attack, the BBC reported a total of 67 deaths of which 48 were Kenyan citizens. Of the 48, 18 were citizens of South Asian origin and 8 were from the Ismaili community (Verjee, 2013). Additionally, of the 175 recorded casualties, 65 were of Asian origin, of which 30 were from the Ismaili community. Being such a small community and considered a minority community within Kenya, the deaths in the Ismaili community was considered "the worst tragedy ever faced by Ismailis in the country" (Shariff, 2013, p. 4). Despite the devastation experienced by this community, there are no known studies that have explored the impact of trauma and PTG among the Ismailis in Nairobi following the Westgate Mall Terrorist attack, therefore this will be the focus of the current study.

2. Rationale of the Current Study

To the researcher's knowledge no known studies exist that have examined PTG among the Ismaili community. While there is evidence of studies on the Muslim community at large in the field of trauma and post traumatic growth (Hobfall et al, 2007), no known empirical studies have been documented in this connection with the Ismaili community in particular. Ismailis are generally known to be one of the most peaceful, well-educated and progressive sects of the Muslim community, being globally situated results in the community's frequent exposure to terrorist attacks in the countries where they reside. These include Iraq, Syria, Afghanistan, Pakistan, India, Kenya, and to a limited extent, the Western countries.

With a focus on the Ismaili community in Kenya, the current research will examine the positive changes experienced by trauma survivors of a terrorist attack that took place in Nairobi, Kenya on September 21st 2013. One of the reasons for focusing on PTG is that there are a limited number of studies examining positive change, in comparison to negative change such as PTSD, following terrorist attacks. Secondly, to the researcher's knowledge no known study has been conducted on PTG and the Westgate Mall terrorist attack. Third, the Shia Ismaili Muslim community, which is considered a minority community in Kenya, experienced tremendous losses during the attack and no research has yet been conducted in to explore this. Fourth, it would be interesting to see if a Western model of PTG, of Tedeschi and Calhoun (2004), can be used in to understand positive changes following terrorism in a non-Western setting, taking into consideration the differences in culture and religion. Fifth, since the Ismaili population has recently been exposed to terrorist attacks all over the world including Pakistan, Afganistan, Syria and East Africa and, to a limited degree, in some Western countries such as Spain, the U.S. and the U.K., any acquisition of new knowledge pertaining to the Ismaili community obtained from this research and shared with other clinicians globally would enhance the work of therapists when working with Ismaili clients. It is hoped that this knowledge may provide a better understanding of applicable resources that could enhance healing among this population, help the Community Counselling Services (CCS) in Nairobi to conduct more effective therapy with the Ismaili community, and be useful to the larger Muslim Umma (global community of Muslim believers) and perhaps even to other faith-based communities.

3. Context for the Present Research Study

The Ismaili community in Kenya estimates approximately 4,000 members of which 2,000 reside in Nairobi (Srivastava, 2013). The community has enjoyed a presence in Nairobi for 150 years and has established schools, hospitals, universities, it's own religious community council and volunteer-run organizations providing assistance in fields such as health, education, law and counselling. The deaths that occurred during the Westgate Mall attack was the most devastating attack the Kenyan Ismaili community had ever experienced and the number of deaths were considered large for such a minority community. Considering the impact of the tragedy, and that the current research explores PTG among Ismaili Westgate survivors, the context of the present study will be within the Ismaili community in Nairobi.

4. Aims of the Current Research

The aim of the current research is to explore the experiences of recovery for adult, Ismaili survivors of the 2013 Westgate Mall terrorist attack in Nairobi. It also aims to understand how the survivors made meaning of their experiences following the attack.

4.1 Research Questions

The research questions for the study are:

- 1) How did the adult Ismaili survivors experience changes in themselves and in their lives after the attack?
- 2) How did the survivors make meaning of these changes after the attack?

5. Methodology

5.1 Study Design

This study was carried out using a qualitative research design. According to Creswell (2003), meanings are constructed by human beings as they engage with and make sense of the world they are interpreting. Qualitative researchers seek to discover these meanings of individual experiences or interpret phenomena by visiting the context or setting of the participants and gathering information personally. In this context, qualitative research is often distinguished by the fact that hypotheses are commonly generated from analysis of the data rather than stated at the outset (Creswell, 2003). Since this study seeks to explore lived experiences of growth, a qualitative research design was seen as the most suitable. It gave participants the opportunity to express their own viewpoints, talk openly about their experiences largely without the use of structured questions, and do so in the setting and context in which the research was being conducted. Further, it allowed the researcher to collect information as it emerged from participants during the study. The researcher did not use a construct, such as the PTGI, to measure growth primarily because the current research is qualitative in nature and the researcher was more interested in openly exploring the unique experiences of each participant. Thus, using semi-structured interviews helped elicit more information from the participants, while creating room to openly discuss experiences of any cultural or religious influences on growth.

5.2 The Researcher

The researcher is an Ismaili and interviewed Ismaili participants. Thus, participants felt more comfortable to talk about any Ismaili terms, constructs or concepts, and these terms were more easily understood by the researcher. Complementing this, the role of the investigator gave the researcher an opportunity to better understand mental health among her own community, and to use these findings to help inform therapeutic practices on PTG in terrorist attacks within the Ismaili community. Professionally, the researcher has worked with trauma survivors over the last twenty years and has specialized in many therapeutic techniques in this area. The researcher was very involved in the counselling of Ismaili and non Ismaili adults following the Westgate Mall attack. This created a deep personal interest in the researcher to conduct the current research particularly within the Ismaili community to which she belongs. Thus, the current study was conducted with a passion for learning

and with the intent to better inform therapists working with Ismaili survivors of terrorist attacks (see Appendix C for an explanation of the researcher's epistemological position).

5.3 Participants

A total of six participants comprised the sample for the current study. Five were female and one was male, all of whom were born and lived in Nairobi. Participants were aged between 28 to 65 years old. All participants were trapped in the mall during the terrorist attack for between two to three hours. Out of these, one was with her husband in a retail shop, one was in the washroom, two were in a cafe, (seated on separate tables), one was in the strong room of a bank, and one was in the store with both her teenage children (see Appendix D for a summary of participant information). Fortunately, none of the participants were injured during the attack however, the male participant witnessed the fatal shooting of his cousin whom he was seated with in a cafe. Interviews were conducted in English and took place in settings that were selected by the participants, four of which were conducted at the participant's home, and two at a local coffee shop. Further, all participants' original names have been changed to pseudo-names throughout the current research and all additional documents, to protect their identity.

The rationale behind the selection of six participants lies in the use of Interpretive Phenomenological Analysis (IPA) approach to this qualitative inquiry. IPA is an idiographic approach that explores the unique and rich experience of a person. Specifically, research that uses IPA generally recommends approximately six to eight in-depth interviews in order to obtain sufficient data (Larkin & Thompson, 2011; Smith, Flowers, & Larkin, 2009). Only Ismailis living in Nairobi were invited to participate since that is where the attack took place. Additionally, both male and female individuals were invited to take part to help create a more representative study sample. Further, individuals who were present at the mall for two to three hours during the attack were invited to participate because most Ismailis were present at the mall for that period of time, and it also assisted in keeping the time variable consistent with their experiences. Further, only adults were eligible to participate, and in Kenya, this falls in the legal age bracket of 18 and 65 years. Additionally, participants needed to understand and communicate in English for several reasons. First, due to different terminologies used in different languages, parts of the participant's reporting could have been lost in translation, and second, translating certain religious terms

and concepts from Arabic and Gujarati languages to English could not be done with total accuracy, and would therefore likely influence the results.

5.4 Inclusion and Exclusion Criteria

To determine the eligibility of participation in the study, the criteria below were applied. Specifically, participants were required to be:

1. Members of the Ismaili Muslim community living in Nairobi.
2. Aged between 18-65 years.
3. Were present at the mall for two to three hours during the attack.
4. Have English proficiency.
5. Ability to provide written consent to participate in the study.

Individuals were not eligible to participate in the study if they met the following criteria:

1. Inability to provide consent to participate in the study.
2. Inability to communicate in English.

5.5 Materials

Semi-structured interviews were used to gather participants' experiences, using a form called the 'The PTG Topic Guide' (Appendix E). This method was selected because the semi-structured nature provides enough direction to guide the participant around their experiences of PTG, while allowing the discussion of new questions that may arise during the interviewing process. Participants were first asked a few background questions, and then some topic-focused questions.

5.6 Ethics Approval

The researcher first obtained approval from the University of Leicester Ethics Committee (Appendix F) before beginning the study.

5.7 Procedure

Following ethics approval, the researcher began identifying and recruiting participants for the study, which involved preparing an Information Poster (Appendix G). The poster explained the purpose of the study and invited potential participants to take part in it. The researcher's telephone number and e-mail address was provided on the poster so that interested individuals could contact the researcher to ask any questions about the study. The poster was placed on a public notice board in the Ismaili Mosque, which allows Ismailis to place notices and information on a broad range of topics, such as research studies. Being an

Ismaili, the researcher did not need any permission for this process. Interested individuals who contacted the researcher learned about the study and were emailed a Letter of Information (Appendix H) and a Participant Information Sheet (Appendix I). These two documents further outlined details about the study including the purpose and procedure of the study, ethical considerations, confidentiality and potential benefits and disadvantages. Once the individual consented to take part in the study, an interview date was arranged. Care was taken to ensure that all interview dates did not take place on any date with religious, cultural or personal significance for the participants, but were scheduled on a convenient day, place and time for each individual. On the interview day and before beginning the interview, the researcher answered any questions the participant had about the study, after which the participant was requested to sign a Consent to Participate Form (Appendix J). All interviews were audio-recorded and lasted approximately 45 minutes to an hour.

5.8 Data Analysis

Interpretive Phenomenological Analysis (IPA) is an approach to qualitative analysis with a particular interest in how people make sense of their experience. As a method it uses what is known as the double hermeneutic whereby the researcher interprets the interpretations given by the participants of their experiences. IPA is also a phenomenological approach in that it explores an individual's own account or perception of an event or state, as compared to attempting to simply produce an objective record of the state or the event. IPA requires the researcher to collect detailed, reflective, first-person accounts from research participants themselves, and centers on providing an established, phenomenological-focused approach to interpreting these accounts (Larkin & Thompson, 2011). Since the current study examined the individual's experiences and it was an exploratory investigation in nature, it was considered necessary to use a flexible approach that would allow for the exploration of various aspects of an individual's experience while still maintaining its richness. The study also utilized semi-structured interviews, which is a technique that fits with the IPA approach (Smith et al., 2009). Considering all this, IPA was deemed the most suitable approach for the analysis of the current study.

Using this approach, the researcher first transcribed the data from the recorded interviews and read through each transcript to immerse herself in the participant's world.

The researcher then carried out a line-by-line analysis of each account, underlining comments that had a descriptive, linguistic and conceptual focus to them. During the conceptual annotation, coding of the underlined comments was done, with a focus on participants' overarching understanding of the matters they were discussing (see Appendix K for a sample of the coding process). This step was repeated two more times to validate the formulated meaning and promote trustworthiness in the results. Similarities and differences of the comments and codes between the transcripts were also noted.

Next, focusing on these codes and corresponding comments within the transcripts was done to uncover emerging themes. This involved combining codes of similar content into groups so that deeper, underlying meanings could be obtained from them. This step also enabled the researcher to manage the large volume of detail in the data. The themes that emerged not only reflected the participants' original words and thoughts, but also the researcher's intuitive interpretations. Once the themes were established, the next step involved exploring connections between them. The researcher did this by typing out all the themes in chronological order, eyeballing the list, and moving themes around to form clusters of related themes. Any similarities and differences that emerged during this process were noted. The themes were then categorized into super-ordinate themes, which were the overarching titles of a collection of related sub-ordinate themes. From this analysis, five super-ordinate and 12 sub-ordinate themes emerged in the current study, which are summarized in the results section below.

5.9 Quality Issues

One of the most important aspects in qualitative research is ensuring quality of the study (Smith et al., 2009). Several steps were thus taken by the researcher to improve the quality of the research as recommended by Yardley (2000, 2008). First, the researcher clarified her own position and used reflexivity to not only understand their personal interests but also how they might influence the overall research process. The reflexivity also shaped the analysis to help ensure that the study was grounded in participants' own accounts. Second, the researcher demonstrated sensitivity to the context through showing empathy to the participant, putting them at ease, and being mindful of any difficulties of interaction during the interview process. This sensitivity continued through the analysis process. Third, the researcher was personally committed to ensuring that the participants

felt comfortable and at ease during the interview while attending closely to their accounts. The researcher also selected a highly appropriate and homogeneous sample (i.e. all adult, Nairobi Ismaili survivors of the Westgate terror attack) to the research question, to ensure rigor of the study.

Fourth, the researcher maintained transparency by clearly describing how the research process took place, including the selection of participants, and the interview and analysis processes, as well as keeping the write-up close to the principles of IPA. Further, in order to try and maintain a sense of objectivity and role balance, the researcher kept a journal (see Appendix L for an extract of the researcher's journal), where she recorded her feelings about each interview, and thoughts about the participants' stories and how they impacted her and her role as a researcher. This short but important activity greatly helped to maintain a sense of inner balance by remaining open during the interview process, while at the same time, attending to and exploring the researcher's own feelings, thoughts and experiences. Further, the researcher familiarized herself with the current research in the area of the current study, and was aware of the implications and importance of the findings of the current study for clinical cases as well as for service throughout the research process. Lastly, in an attempt to avoid over-generalization or over-simplification of interpretations, the researcher checked the interpretations for contradictions within the data, and also discussed them with her supervisor and fellow doctorate candidate.

6. Results

Following the analysis, five super-ordinate themes and twelve subordinate themes emerged from the analytical process across the six interviews. These are summarized (Table 1) and discussed in the sections below. Connections between themes are also summarized in Appendix M.

Table 1: Summary of Super-ordinate and Subordinate Themes

Super-Ordinate Themes	Subordinate Themes
Faith as a Source of Support	The importance of <i>Salwat</i> Enhanced religious practices Centrality of <i>Mowla</i>
New Appreciation for Life	Appreciating life and oneself “ <i>You become stronger and stronger</i> ” “ <i>Take is as today is the last day</i> ” No fear of death
Deeper, New Connections with other Survivors	New, deeper bonds with other Westgate survivors Identifying with global hostages of terrorist attacks
A Renewed Value for Relationships	“ <i>Giving more attention to my relationships</i> ” “ <i>We need to give back</i> ”
A Mixed Sense of Vigilance and Anxiety	Alertness and avoidance

Descriptive accounts of the themes are provided below with key quotations to highlight how they have been categorized¹.

6.1 Faith as a Source of Support

A positive change in faith was a running theme across five of the six participants, who viewed it as a source of inner strength after experiencing the Westgate attack. Turning to their faith and to God for further protection, as well as offering thanks to their *Mowla*

¹ In the quotes, [...] is used when parts of that specific section in the transcript were omitted as they were either repetitive parts of speech or provided no contribution in understanding the account.

(another term for *Imam*, who is the spiritual leader) for taking care of them and their families in this highly trying situation seemed to give them solace and hope. It appears that the participants' strong conviction of their faith empowered them to believe that they would be protected from this crisis due to divine intervention of their Mowla. This mode of thinking became clearer when participants offered prayers of thanks to their Mowla at the end of their ordeal. Three subordinate themes were identified which looked at different, but prominent aspects, of faith as they surfaced during the interviews.

6.1.1 The importance of *Salwat*.

The first subordinate theme that was identified was the importance of *Salwat*. The term *Salwat* in Arabic means a prayer which invokes God's blessings on the Prophet and the Imams. Ismailis believe that the Prophets and the *Imams* are carriers of the spiritual light of Allah imparting continuous knowledge and guidance to the community to help them progress on the path of religion (Daftary, 1998). On narrating how they had coped during the incident, five of the six participants mentioned that they had recited the *Salwat* continuously. It seemed that their implicit faith in the power of the *Salwat* to alleviate their difficulties, to protect them and to guide them provided them with inner strength. Parin's quote below indicates this.

"I was there throughout, and I just said Salwat, and it helped...it really helped...when you think of him, he's there, oh he's there!" (Parin, 46-47)

The belief in the power of *Salwat* is also reflected in Shemina's narrative, where it appeared that reciting prayers and particularly, the *Salwat*, was important and discusses the *Salwat* as her primary source of support at the time of the attack.

"...all I knew was that I was praying and the other Ismaili ladies with me were praying too...we were just reciting Salwat all the time." (Shemina, 54-56)

Thus, the concept of *Salwat* appeared to be a significant source of support and hope for the participants, reflecting their spiritual connection.

6.1.2 Enhanced religious practices.

Another important subordinate theme that emerged was regarding the reinforcement of religious practices. Participants talked about it with increased importance and discussed new ways of how they were engaging with their faith, as well as how they were beginning to prioritize it. It seems that after the attack participants experienced a strong urge to

re-engage with their religious practices. Remembering to recite specific prayers regularly is an example of this. Some participants also mentioned taking extra effort to practice their *Bandagi*, or meditation, while others developed a desire to offer their voluntary services in the *Jamat Khana*. Malek's quote below captures this and also emphasizes her re-commitment to her religious practices.

"I was never punctual in Dua and sometimes I wouldn't recite it at all...but since that time, I felt so depressed and I couldn't sleep so, my husband and I decided that we would never miss our Dua now." (Malek, 37-40)

For Naira, the significance of performing her meditation regularly and offering her services voluntarily in the *Jamat Khana* seemed to take on a deeper meaning of prioritizing and connecting more profoundly with her faith following the attack.

"I was always a strong person in my faith, but now I feel even more that I don't like to miss my meditation, or going to Khane at 4.00 am...and then I try and clean Khane and that's where I get my peace." (Naira, 78-80)

6.1.3 Centrality of Mowla.

The concept of *Mowla*, or *Imam*, was described as being central to all six of the participants' survival. The role of *Mowla* is to interpret the meaning of the faith for Ismailis and provide spiritual guidance. Juliana's account below highlights this centrality of *Mowla*. Her quote also appears to capture her firm belief of a divine intervention by *Mowla* which she believes saved her on the day of the attack.

"I feel it was Mowla who saved me. It was a miracle the way we got out and his hand was there to get us out." (Juliana, 132-133)

Although Mahmoud states that he had severed his link with the Ismaili community prior to the Westgate attack, he nevertheless stated that it was *Mowla* who saved him. He seemed to express, with a tone of conviction, that *Mowla* indeed saved him.

"...only that I thank my Mowla for saving us. Really, thanks to Mowla." (Mahmoud, 86)

It appears that both the religious practices and the *Salwat* are connected to the centrality of *Mowla*. Specifically, from the participants' accounts, it seems that the focal point of their religious worship and prayer, including the *Satwat*, was *Mowla*.

6.2 New Appreciation for Life.

The second super-ordinate theme identified was that of experiencing a new appreciation of life. There was a significant change in how most participants viewed their lives before and after the attack, and realism seemed to have set in prompting them to re-evaluate their lives. Four subordinate themes were identified here.

6.2.1 Appreciating life and oneself.

The first subordinate theme that emerged was that of developing a new sense of appreciation for life and oneself. Participants mentioned not taking life for granted any more. A new understanding of the fragility of their lives had emerged triggering a new sense of appreciation of life and themselves. Parin's quote below reflects this.

"Enjoy it while it lasts...there's a new appreciation for life, definitely... Before I took life for granted, but not anymore." (Parin, 42, 44)

Naira's narrative supports Parin's view of appreciating and enjoying life and living it purposefully.

"...now the feeling is that now you live for the day, you say, thank God every morning when you get up because you don't know what the next moment has in store for you...So it was a blessing in a way that we had life." (Naira, 2-4, 20)

Not all participants, however, experienced this change. Mahmoud comments on this in his quote below.

"...people say that now I've got a new chance in life, that from now, I'll do things differently. No, that thought is not coming in my mind, at all, at all." (Mahmoud, 74-76)

6.2.2 "You become stronger and stronger."

Gaining in strength after the attack was another theme that participants shared. For instance, Juliana narrated how she had changed from panicking over small issues in life to handling them in a calm and collected manner.

"I think I can cope with situations better. For example like, before even with something small I would get panicky, uptight, but now if I have an issue to deal with, I'm dealing with it in a calm way, I don't get as frazzled with situations as I used to...so, in some way I feel I have become stronger." (Juliana, 177-181)

Other participants mentioned becoming more resilient when facing future adversities, such

as Malek.

"We became stronger. Once when you go through such a very, very tough situation, you become weak at first, but then you become stronger and stronger...uh...like now if something happens I'm not that scared, because your heart becomes like a stone."

(Malek, 33-37)

6.2.3 "Take it as today is the last day."

Developing a new perception of time and its limitations was another subordinate theme that emerged. Participants mentioned experiencing a sense of wanting to accomplish tasks without delays. This is seen in Parin's quote below.

"Take it as today is the last day...that's how it should be, you know? ... You know...now...I feel I want to get [daughter] married, have grandchildren and enjoy them...I also feel like what I can do today, I mustn't wait till tomorrow." (Parin, 41, 76-78)

Being grounded in the present, enjoying life and ceasing to worry about the future is reflected in Juliana's quote given below.

"I just think I want to make the most of every moment...like I don't want to think that tomorrow I'll do this or the day after I'll do that. I just want to be happy, just peaceful...Now I live more in the present." (Juliana, 98-101, 134-135)

6.2.4 No fear of death.

The concept of the acceptance of death was seen in many of the participants' transcripts. They mentioned having no fear of death since they firmly believed that it was only God who controlled death and therefore the attitude of complete surrender to the will of God prevailed. Malek's quote below reflects this.

"Death is something that Mowla Bapa decides, not us...if it was written, I would have died, because I lost my friend as well, so God will decide our death, so I don't need to worry about it...I really believe that it is Mowla Bapa who is taking care of everyone. In our Jamat we lost 8 Ismailis, but then I say that was God's wish, so we can't think too much about that." (Malek, 56-58, 74-76)

Naira echoed Malek's belief about death.

"I don't fear death, I'm not worried about when or where I'm going to die...I think that's the important thing, that we should be thankful for everything we have." (Naira,

6.3 Deeper, New Connections with other Survivors

The third super-ordinate theme identified was the formation of new and deep connections with other survivors of the Westgate attack. Sharing this highly traumatic experience created a bond of friendship and understanding between the survivors. Moreover, this identification and empathy was extended to hostages of other global terrorist attacks. Two subordinate themes emerged here. One was the formation of new and deeper bonds with other Westgate survivors and second, an identification with other hostages of global terrorist attacks.

6.3.1 New, deeper bonds with other Westgate survivors.

Sharing the same physical and psychological space with other survivors trapped in the mall brought about a closeness between them. Experiencing together the feelings of intense fear and helplessness and simultaneously feeling supported by one another created a new bond of deep understanding between them. Parin and Juliana's quotes below indicate new bonds formed in this context.

"But after that, [other female survivor] has become quite a good friend of mine...she was the only one who was with me, we were together. Before I used to see her in Jamat Khane and we never really talked, but after this we became close." (Parin, 73-76)

"For the people who were with me, I have built a friendship as we had something in common...so uh...a lot of us, we do connect and sometimes there are days when all of us are feeling the same, so like...I made new friends through this experience. We go out together and socialize together and not even talk about Westgate all the time...we are four or five of us, we never knew how close we could be to one another, but now we know each other." (Juliana, 143-148)

6.3.2 Identifying with global hostages of terrorist attacks.

A new identification with hostages of global terrorist attacks emerged in the second subordinate theme. It seemed that participants could enter the frame of reference of those other hostages, and relate to their suffering. Malek's quote below describes this view well.

"I feel so bad...when I close my eyes and think what they must have gone through with the terrorists I feel so bad but I can't do anything." (Malek, 62-63)

Similar feelings and thoughts were echoed by Shemina in her quote below.

“The main thing uh...is that...any time these terrorists attacks happen around the world, I feel like they are going through what we went through.” (Shemina, 44-45)

6.4 A Renewed Value for Relationships

The fourth super-ordinate theme identified was that of having a renewed value for relationships. Specifically, participants reported prioritizing their relationships not only with family, friends but for all human beings. Two subordinate themes emerged here which are discussed below.

6.4.1 “Giving more attention to my relationships.”

All participants mentioned experiencing a positive change in their relationships with their loved ones, friends, colleagues and employees. They explained that upon realizing the frailty of life, they gave more attention to their relationships. Juliana and Mahmoud’s quotes below reflect this theme.

“I think I’m giving more attention to my relationships like, not just to my family but to everybody around me, even from the guard of my office to my house help...all relations now matter more to me, even the way I deal with people.” (Juliana, 157-160)

“...I’ve tried to hang on to those people who can be called my friends...whichever friends I have, now, very few, I’ve been able to hang onto them more...I’ve been able to be closer with them because they understand what the problem is.” (Mahmoud, 94-95, 99-101)

6.4.2 “We need to give back.”

The second subordinate theme that was identified was that of wanting to give back to society. Having experienced several losses because of the attack, such as, loss of relationships, loss of self esteem and loss of safety seemed to trigger within the participants a deep compassion for the poor in society and motivated them to share their resources with others. Naira’s quote below explains this.

“So it’s always now thinking how can I give back. I’ve got so much, how can I give back? ... Even now when you see somebody on the street, you want to give him bread and milk...you say he deserves it...he may not have a meal on his table, while you have everything laid out on your table, so you say how can I give back?” Naira (81-85)

In contrast, Malek’s wish to help the under-privileged in society appeared to stem from experiencing anger and disappointment at being refused financial help for her children’s

school fees at the time of the attack. This, coupled with the disrespect she experienced from her boss's insensitivity towards her, seemed to fuel a desire to help those in financial need.

"If something had happened to me, no-one would have helped, not even my boss...I feel that when I reach that level I really want to earn a lot and help people who really need school fees and all." (Malek, 132-134)

6.5 A Mixed Sense of Vigilance and Anxiety

The fifth super-ordinate theme that was identified was that of experiencing a mixed sense of vigilance and anxiety. This theme differed from the other four super-ordinate themes mentioned above, as it contained both positive and negative aspects of change. Specifically, the sense of vigilance that developed within the survivors was depicted as normal and positive as participants noted that it helped to alert them to any future calamities. However, the avoidance of places such as malls, because they acted as reminders of the attack, were depicted as negative aspects of change as they appeared to be the result of participants' fear and anxiety.

6.5.1 Alertness and avoidance.

The subordinate theme identified here was that of alertness and avoidance. Participants narrated that although they were more alert and aware of their surroundings after the attack, there was also a persistent sense of anxiety that came through their narratives, which they appeared to cope with using avoidance. Parin's quote below reflects.

"So after this incident, I would be careful...so when I go, I go to the mall in the morning and finish what I need to do...now I avoid it at peak times, malls, clubs, etc." (Parin, 32-34)

However, some appeared to experience more of one or the other. For example, Malek appeared to experience a greater sense of vigilance than anxiety.

"We've learned to face the problem...so I don't need to worry about it...we be careful, but we can't worry about it. I haven't forgotten it...I still remember it and it makes me more and more stronger when I remember those days. I mean it could happen anywhere." (Malek, 49-50, 58-61)

In contrast, Mahmoud seemed to experience more anxiety than vigilance. He mentions monitoring the malls in fear of a future attack and even avoiding popular malls in the city.

"...firstly we don't go to malls, because we don't know when the next attack is, unless

we have to go. You know, before...I mean...like also we are monitoring the malls closely, and we are reading newspapers more, making sure we don't come into an attack...see people are talking of Village Market, of Sarit, Junction malls, see now we don't go there unless we have to.” (Mahmoud, 44-49)

7. Discussion

The aim of the current study was to explore the experiences of recovery of adult, Ismaili survivors of the 2013 Westgate Mall terrorist attack in Nairobi, Kenya, and to understand how the survivors made meaning of their experiences following the attack. The findings revealed several positive changes that took place in the participants following the attack. These were changes in faith, a new appreciation of life and the self, the development of deep connections with other survivors, and changes in existing relationships. The fifth theme of vigilance and anxiety however, indicated both positive and negative changes experienced by the participants.

Regarding the first theme, it appeared that following the attack, participants experienced a new, more meaningful way of engaging with their faith and developed a deeper connection with their spiritual leader. They made meaning of this change by recommitting to their faith and showing their gratitude to their spiritual leader. The second theme outlined a positive change in the way participants interacted with life and themselves, and they made meaning of this by cultivating a renewed appreciation for life and for themselves by wanting to make the most of life and by acknowledging their inner strength. The third theme reflected participants' unique connection to survivors of other terrorist attacks and particularly to the survivors of the Westgate attack. They made meaning of these changes by developing compassion for global hostages and building new deep relationships with co-survivors of the Westgate attack.

Regarding the fourth theme, participants noticed positive changes in their relationships, and the meaning they derived from these changes centered around placing greater value and prioritizing their current relationships. A common thread that ran through the four themes was 'a new way of being.' The fifth theme however, indicated that while participants had become more alert and aware of their surroundings, they had also become more anxious about the safety of their loved ones and themselves which led to a total or partial avoidance of venues that acted as reminders of the attack. Although this can be considered a normal reaction for most individuals experiencing trauma following a terrorist attack, it also indicates the presence of fear and excessive anxiety within the individual which is perceived as negative as it can be restrictive in enabling a fuller life. These findings are discussed in further detail in the sections below in relation to the wider literature on

post-traumatic growth. Following this, the limitations of the study, clinical implications, and areas of future research will be addressed.

The findings of the current study appear to be congruent with Tedeschi and Calhoun's (2004) conceptualization of PTG, as all thematic areas of the current study were highly consistent with Tedeschi and Calhoun's five domains of growth. In addition, several areas of consistency of the current study were noted with Hobfoll et al.'s (2006) COR theory and Hobfoll et al.'s (2007) research on action-focused growth. For example, given the context of the attack as well as the reflections on life and themselves, the enhanced relationships with friends and family, other hostages, and also with their spiritual leader that emerged, it is likely that the primary threat of the loss of life during the attack could have triggered this search for meaning and closeness with others, implying that the current research can be understood through the COR theory. Additionally, many of the actions that participants engaged in following the attack were reflective of the positive changes they were experiencing. For example, although none of the participants had sought counselling following the attack, they had begun to engage in activities such as involvement in more frequent religious practices, begun to take more immediate action in pending tasks, developed new, long-term friendships, and began to give back to their society. This suggests that the changes they experienced may be considered as action-focused growth, which was both a cognitive and behavioral process, demonstrating congruence with both Hobfoll et al.'s (2007) research and the action-focused components of the Janus-faced theoretical model (Maercker & Zoellner, 2004).

Furthermore, the changes which the participants experienced were functional, constructive and indicative of self-development on several levels. This is congruent with the self-transcending side of Maercker and Zoellner's (2004) Janus-faced model and is again indicative of PTG, according to this theory. Maercker and Zoellner (2004) further state that the self-transcending side may lead to unfavorable negative consequences if meaning is not turned into action. However, as noted above, participants demonstrated meaningful action in several ways that were each reflective of the area of change they were experiencing. Lastly, the fact that participants accommodated the new trauma-related information in a way that produced positive changes in their lives, and which in turn decreased their distress levels, is evident of cognitive accommodation in a positive direction,

according to Joseph and Linley's (2006) OVP theory.

An important observation was that the account of Mahmoud, the male participant in the study, showed mixed findings in regards to understanding his experiences through the various models. For instance, the only area of positive change that Mahmoud talked about experiencing was a new closeness with his friends after the attack, which was consistent with only one of Tedeschi and Calhoun's (2004) domains of PTG. Additionally, the loss of his cousin's life appeared to trigger a stronger bond with his friends but had limited meaningfulness in a positive direction, showing minimal congruence with the COR theory. Further, Mahmoud mostly experienced changes that were less adaptive to his growth and recovery from the traumatic experience, such as avoiding malls, desiring to leave the country and having a pessimistic view of the future, which can be understood as the dysfunctional side of the Janus-faced model (Maercker & Zoellner, 2004). These changes also reflect cognitive assimilation, implying that Mahmoud had likely made meaning of the event to a point of comprehensibility, of understanding the event and why it took place, but seemingly not to a point of significance, where implications of the event are made from a philosophical, spiritual world view (Janoff-Bulman & Frantz, 1997). According to Joseph and Linley (2006) in their OVP theory, it may be understood that Mahmoud had experienced assimilation and not accommodation. According to these theorists assimilation results in a return to pre-trauma baseline levels, but at the same time, it leaves the person more vulnerable to future re-traumatization whereas, accommodation necessitates a change in one's world view.

While the above findings indicate mixed results regarding the understanding of Mahmoud's experiences of change through the various models of PTG, it is also worth examining whether gender may have had a role to play. An exploration of the current literature in this field suggests that gender differences do seem to be significant in the experience of growth. For instance, Hall et al. (2010) noted that being female predicted greater PTG, and suggested that this may be due to the tendency of women to look for and offer social support, thereby gaining increased closeness with others, which is a key element of PTG. Butler et al. (2005) also found that out of seven variables, being female was one of two most predictive of PTG in the long term. These findings are significant and support the possibility of gender being an influential factor in the findings that the five

female participants experienced growth. The exception to this was Mahmoud's limited experience of change. However, bearing in mind that adversity does not necessarily lead to positive change for everyone, it would be inaccurate to conclude that he had not found any meaning from his experience. Further, it is important to consider that Mahmoud was the only participant to experience the loss of a family member in the attack, and that his Kenyan-Asian culture may have played a role in inhibiting the expression of his feelings and seeking support. Thus, drawing any conclusions from the current study regarding the male experience of change following a terrorist attack is difficult, and further research is needed in this area. Taken together, these findings provide important insights into the applicability of current theoretical approaches of PTG to non-Western populations. The findings suggest that the overall experiences of positive change within an Ismaili context can be generally understood as growth through various theoretical models of PTG, and that Mahmoud's experiences are inconclusive in this regard.

While it is necessary to examine how the findings of the current study can be understood as growth through various theoretical models, it is also important to compare them to prominent research on the domains of growth. The domains of growth differ from the theoretical models of PTG in that, the domains outline specific areas of change that an individual may experience following a traumatic incident. The theoretical models, however, describe the transformative process an individual goes through from the time of the trauma to growth. Since the results of the current study describe areas of change experienced by the Ismaili participants, it is necessary to compare these findings to current literature on the domains of change following a traumatic incident. In this area, the most prominent researchers include Antoni et al. (2001), Armeli et al (2001), Hall et al. (2010), and Tedeschi and Calhoun (2006). A comparison of these studies to the findings of the current study revealed several similarities, and again, a high congruence with Tedeschi and Calhoun's research², for five of the six participants. For example, not only did the four areas of positive change in the current study show congruence with Tedeschi and Calhoun's five domains of growth, but the Ismaili participants' experiences of change varied individually, and some experienced significant changes in areas which others did not. This

² While the current study looked at the changes experienced by survivors of a terrorist attack, Tedeschi and Calhoun's research largely examined changes following a variety of traumatic situations. Thus, making fully accurate comparisons between the two findings is limited.

is also consistent with Tedeschi and Calhoun's notion that each of the domains of growth are separate and meaningful aspects of PTG, and that growth may not occur simultaneously and may not be the same for all individuals (Taku et al. 2008). The findings of the current study also showed congruence with Hall et al.'s (2010) three domains of PTG including self-perception, interpersonal relationships, and philosophy of life, as well as Antoni et al.'s (2001) domains of acceptance of life's imperfections and becoming more cognizant of the role of other people in one's life. Lastly, Armeli et al. (2001) posited that PTG takes place across seven domains including treatment of others, religiousness, personal strength, sense of belonging, affect-regulation, self-understanding and optimism. The findings of the current study show high similarity with all domains, with a moderate similarity to affect-regulation. Thus, although several similarities were observed between the domains of growth, what emerged clearly is that the main findings of positive change in the current study are most highly congruent with Tedeschi and Calhoun's research on PTG. Therefore, a more in-depth comparison of the two findings, as well as the salient points that were raised through this process, will be discussed in the sections below.

The first point of discussion concerns faith. In the current study, not only did participants experience faith as a source of support both during and after the attack, but they also experienced an enhancement of their religious practices, and Tedeschi and Calhoun's (2004) model was consistent with this. However, what was unique to the current study was that faith seemed to be the most salient aspect of change for the participants. Their faith was central to their survival of the attack, the experience of recovery from it, and a significant component of several, positive changes that followed. What was brought to light in the data was the element of seeking support from the spiritual leader and praying. Although these two elements do exist in other religions, the impact it had on the participants' experience of change following the attack is unique to the current study. It appears that this finding is reflective of the centrality of faith for members of the Ismaili community, the significance of the spiritual leader within it, and the religious and spiritual relationship they have with him. Being members of a faith-based community, it is also likely that participants quickly identified with their faith as a powerful source of support and used this to help guide them through the process of positive change that followed.

The second super-ordinate theme identified was that of experiencing a new

appreciation of life. Having encountered a near life-and-death situation, participants discussed valuing life and themselves much more, recognizing the shortness of life, and wanting to make the most of every moment as a result. In Tedeschi and Calhoun's (2004) research, an increased appreciation for life was the most frequently cited area of change in their research. What came up prominently in this theme was that participants' overcoming of their fear of death was strongly related to their faith in God. Specifically, their attitude of complete surrender to God and belief that only God controlled death was significant in enhancing their inner strength. This was not observed in other research on PTG and therefore appears to be a finding unique to the current study.

The establishment of deep, new connections with other survivors of the Westgate attack, as well as the development of feelings of compassion and understanding for other terror attack survivors was highlighted in the third super-ordinate theme. Tedeschi and Calhoun concurred with this finding by noting that survivors of a traumatic event who underwent losses experienced an increased connection with other survivors who also underwent losses due to the same event (Calhoun & Tedeschi, 1999). However, one unique point that emerged through this comparison, which did not appear in Tedeschi and Calhoun's (2004) research or other research on PTG, was that the Ismaili participants developed particularly strong connections with other survivors who were in close physical proximity to them during the Westgate attack. One possible reason for this may be that considering the participants were held hostage for two to three hours, sharing a physical space with other individuals also involved a shared suffering between them, and a common experience of pain, all of which facilitated the creation of a strong bond between them. Additionally, it is possible that there was a strong identification with other members of the same faith-based community, which may have enhanced these relationships, given the strong bonds between the community members themselves. In the current study, some of these bonds carried on through the process of recovery and positive change after the attack, raising the question of whether such connections may be lifetime. Further research in this area is needed to better clarify this.

The fourth super-ordinate theme that emerged in the current study was in the area of interpersonal relationships. Ismaili participants mentioned experiencing an overall, positive change in their relationships. They tended to value and prioritize their relationships more.

Similarly, Tedeschi and Calhoun's (2004) research findings indicated a strengthening of relationships which seemed to gain in priority. The similarity in this finding is not unusual as researchers have mentioned that PTG tends to occur in the context of relationships (Tedeschi & Calhoun, 2004; Hobfoll et al., 2006). Thus, it appears that the re-connection which takes place during the recovery phase is conducive to growth as it takes away the feelings of isolation and disconnection which are commonly experienced in the aftermath of trauma. A second point of significance that came up in this theme was the desire to give back to society, particularly the poor. This wish seemed to be fueled by a deep compassion that was felt for the disadvantaged when participants realized that nothing was really in their control, including death. It is possible that the desire to share personal resources with the less fortunate following the attack may reflect participants' identification of the pain of deprivation of the essentials in life, which the less fortunate commonly experience. Therefore, given that the rate of poverty is high in the Kenyan context, it is possible that feeling grateful and blessed for surviving the attack triggered a desire to share personal resources with the under-privileged in society.

The fifth super-ordinate theme was Vigilance and Anxiety. While the four themes mentioned above depicted positive changes experienced by the participants, this fifth theme revealed mixed findings where participants experienced both positive and negative changes. This result is supported by Tedeschi and Calhoun's theory of PTG, where they mention that growth and distress can coexist in an individual having experienced trauma. In fact, they further stated that some distress was necessary for growth to occur cognitively, as individuals moved from the automatic rumination phase which was largely emotional, to a more significant, deliberate rumination phase in order to be able to move forward (Tedeschi & Calhoun, 1994, 2004). It also appeared that the experience of vigilance reflected a sense of strength and self-protection, while anxiety reflected a sense of fear and apprehension. Tedeschi and Calhoun's (2004) research, as well as with the wider literature in this field, shows congruence with this finding, noting that following a traumatic situation, individuals feel more vulnerable, yet stronger. It seems that the crisis event and the consequences of the trauma increases the belief that the world is an unsafe place and that traumatic events can happen at any time. However, the need to meet the necessity of continued functioning is triggered and meeting these successfully can greatly enhance the individual's sense of

personal strength (Tedeschi & Calhoun, 2004). This brings to question whether this oscillation between vigilance and anxiety may be a process of growth itself, where the person experiences a transition from fear to strength, in trying to move beyond the trauma and reconcile this experience with their world view.

The point above appears to show consistency with an important finding in the wider literature in this field, that of the co-existence of PTG and psychological distress. Current research states that growth may require a significant threat or a shattering of fundamental schemas which may coexist with psychological distress (Tedeschi & Calhoun, 2004), and that PTG can be related to greater PTSD symptom severity (Hall et al., 2008). One explanation for this is that trauma symptoms represent attempts to cognitively understand the traumatic event (Butler et al., 2005). Birkeland et al. (2015) also attempts to explain this finding and suggest that PTG may be an attempt to help people deal with emotional distress and enhance well-being. Despite the apparent consistency with the findings of the current study, further research is needed to better understand how the relationship between PTG and psychological distress may be experienced within the Ismaili context.

7.1 Conclusion

In summary, the findings of the current study suggest that Ismaili adult survivors of terrorism can largely experience positive changes following an attack but are also able to experience negative changes. Further, that the positive changes are likely to be experienced in the areas of faith, relationships, identification with other hostages and appreciation of life and oneself. Whereas, the negative changes may be experienced in the area of vigilance and anxiety. These findings are mostly congruent with Tedeschi and Calhoun's research on PTG, suggesting that the positive changes may be understood as PTG, in this context (Calhoun & Tedeschi, 1999). The negative change of anxiety appears to be a normal response having experienced trauma. However, the inconsistencies suggest that certain areas of change experienced by the Ismailis, such as their faith, which appeared to be a more central element of growth, are specific to the Ismaili context and need to be considered when clinically working with this population. The results also suggest that generalizing the current findings to other Ismaili male individuals is difficult due to the limited number of males in the study sample, but at the same time brings to light the possibility of gender differences influencing the experience of change following a terrorist attack. Taken together,

these findings may help to enhance therapeutic success when working with this population, particularly for non-Ismaili clinicians working with Ismaili clientele. The findings will also help the Community Counselling Services in Nairobi to better understand the processes of change which community members of future attacks may undergo both in Kenya, as well as in other countries. Lastly, it would add literature to the research field about the Ismaili religious community, and their experiences of change following terrorism.

7.2 Clinical Implications

The current study has important implications for practicing psychologists working with traumatized Ismaili survivors of terrorist attacks. While the counselor helps to regulate distressful emotions and thoughts facilitating positive functioning following an attack, being provided with empirically-based knowledge on the Ismailis' process of growth can make therapy more effective. First, the finding that faith is extremely important in the process of change for Ismaili survivors is useful information for clinicians. Specifically, their spiritual leader and the *Salwat* holds significance for Ismailis during times of distress and incorporating them into therapy may accelerate the healing process. This would also help to reduce cultural barriers and enhance rapport between Ismaili clients and non Ismaili therapists.

Second, although the findings of the current study support previous research on gender influences on PTG, that women tended to experience PTG more frequently than men, clinicians working with Ismaili male clientele, in particular, need to caution against generalizing this finding to other males. This is because the study consisted of only one male participant and this participant was the only one to experience the loss of a close family member during the attack. Thus, clinicians need to bear in mind further research is needed to support the findings of the current study. Nevertheless, given that there was a link between the current study findings and those of previous research, clinicians can focus more on re-connection when counselling Ismaili male clients. Further, given that culture may play a role, clinicians can also encourage self-disclosure and expression of feelings to enable their clients to heal from the traumatic event.

Third, Ismaili participants who experienced positive changes after the attack mentioned becoming aware of their own sense of inner strength. These experiences enabled them to cope better with their current difficulties and any future adversities. This is a significant

finding and clinicians working with this population could use this knowledge to help motivate their clients to tap into this inner strength, build on it, and use it to experience positive change. However, clinicians would also need to bear in mind that clients can further experience a sense of vigilance as well as anxiety particularly when venturing out to social hubs. Clinicians can be mindful of and acknowledge the sense of anxiety a client might be feeling and provide targeted interventions to help them work through it. They can further help the client experience their sense of vigilance as an adaptive means of self-protection. Fourth, there appeared to be a dichotomy for Ismaili survivors socializing in a religious environment. For some, socializing with community members after the recital of prayers in the mosque was empowering and supportive. For others, it meant narrating their story repeatedly making them relive the incident which they found distressing. It is important for clinicians to be aware of this information and be mindful that the social aspect of the community may not always be beneficial. It is thus important that the therapist is prudent and respect the 'survivor status' of the client, and work alongside the client in helping them to find meaning in their experience. This approach would further serve to facilitate the client's experience of feeling a part of and in control of the therapeutic process.

7.3 Limitations

While there were several benefits to this research, there are also a number of limitations. First, given the qualitative nature of the study, the transfer-ability of the current findings to Ismailis experiencing terrorism in contexts such as ongoing terror, may need to be done with caution. A second limitation is that since the researcher and the participants were of the same faith, participants may have felt inhibited to share openly any aspect about the Ismaili faith and community which they feel might be negatively perceived by the researcher. Third, the sample was mostly female, warranting the need for further research to explore Ismaili male experiences of change following terrorism. Fourth, participants were recruited through poster advertisements on the *Jamat Khana* notice board, and it is possible that individuals who do not attend the *Jamat Khana* very frequently may have missed the notice. Fifth, there is a possibility of self-report bias among participants since it was voluntary participation.

7.4 Suggestions for Future Research

It would be useful for future research to conduct a longitudinal study on PTG among

the Ismaili population to understand the long-term impacts of terrorism on survivors, and to determine if the changes they experience continue over time. It would also be beneficial to carry out additional research in this area using a more gender-balanced sample to explore further the place of gender in PTG within the Ismaili community. Additionally, one feature of growth is the interpersonal component, and therefore, clinicians and researchers would benefit from investigating ways to facilitate growthful interactions within the larger communities in which they live. Further research examining PTG among Ismaili survivors of other terrorist attacks would also be important. Countries with conflict such as Syria, Pakistan and Afghanistan experience frequent terrorism, of which Ismailis are common victims. Studying how growth takes place among these populations would provide greater insight into the impact of sub-cultural differences on growth and growth as experienced in different terrorist contexts.

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Appendix A

A Brief History of the Ismaili Faith

The Ismailis are a sect of Islam which has undergone a long and complex history since the formative period of the religion in the 17th century AD. On the death of the Prophet Muhammad in 632 AD, a split took place among who should be appointed as the leader of the followers. Those who believed it should be the Prophet's cousin and son-in-law, Ali, became known as Shi'is (Daftary, 1998). According to Shi'i belief, Ali was the first *Imam* and this role is hereditary. Over the years, several factions developed within the Shi'i sect, among the smallest being the Ismailis (Nasr, 1985).

As Muslims, Ismailis affirm the *Shahada*, which is the fundamental Islamic testimony of truth. The *Shahada* states that there is no God but Allah and that Muhammad is His Messenger. However, what distinguishes Ismailis from other sects within Islam is the belief that the lineage of the *Imam* continues and has continued successively to His Highness Prince Karim Aga Khan IV, whom they affirm as the current 49th and present living *Imam* of the Ismaili community (Daftary, 1998).

Appendix B

A Brief Description of the History and Role of the *Imam*, or Spiritual Leader, of the Shi'i Nizari Ismaili Muslims

For Ismailis, the primary function of the *Imam* is to be responsible for leading the Ismaili community of his era towards worldly and spiritual progress. In this, he aims to maintain the community's physical, economic, religious and educational well-being as well as their safety in the countries in which they live (Daftary, 1998). In regards to the spiritual nature of the *Imam*, Ismailis believe that their *Imams* are carriers of God's power and are living guides between God and the community. The Ismaili concept of the *Imam's* role differs from those of other sects of Islam, in that the Ismailis believe their *Imams* possess the authority to interpret the Quran, according to the changing times. Ismailis hold deep devotion to and reverence of their *Imam*, who they commonly refer to as *Mowlana Hazir Imam*, which means 'our lord, the living and present *Imam*' (Nasr, 1985).

His Highness Prince Karim Aga Khan IV, is the forty-ninth and current *Imam* of the Ismailis, who ascended this role on July 11th in 1957 at the age of twenty. He inherited the title of 'Aga Khan,' which dates to 1818, when the 46th Imam was granted this title by the Shah of Persia, and the title of 'His Highness' was granted by Her Majesty the Queen of Great Britain in 1957 (Daftary, 1998). He remains in close contact with his followers, continuously advising them through oral and written guidance (Daftary, 1998).

A Brief Description of Religious Terms in Ismailism, and which are Relevant to the Current Study

Imam - Spiritual Leader (Daftary, 1998)

Mowla - Our lord (Daftary, 1998)

Jamat Khana or *Khane* - Congregational house of prayer (Daftary, 1998)

Dua - Ritualistic prayer mandated by all Ismailis to be recited three times a day (Esmail & Nanji, 2007)

Tasbih - (noun) - A rosary

(verb) - A prayer that involves reciting the 99 names of Allah, the name of the Prophet Muhammad, or the names of the (Ismaili) *Imams* (Nasr, 1985).

Salwat - A prayer that beseeches God to shower his blessings upon mankind. In Ismailism, this prayer is made in the name of the Prophet Muhammad and the (Ismaili) *Imams* (Esmail & Nanji, 2007).

Baitul Khayal or *Bandgi* or *Parode* - A meditation session held every morning at the *Jamat Khana* (Esmail & Nanji, 2007).

Appendix C

The Epistemological Position of the Researcher and the Method of Analysis Used

For the purpose of this research study, the epistemological approach of phenomenology has been used. A primary reason for selecting this approach was that the researcher, who is psycho-therapeutically inclined, was interested in exploring the type of subjective experiences that research participants themselves experienced. The aim of the researcher's study was to try and understand the participants' past from their own subjective perspective without being overly concerned with the accuracy of the information being presented. In addition, the phenomenological interpretative approach was selected over the phenomenological descriptive approach to enable the researcher to go beyond the description of the content and to try and find meaning in it through interpretation. Moreover, the phenomenological approach is fairly flexible since it assumes that there is a certain degree of correspondence between what a person says and what he experiences. Further, it does not take realistic approach as it is not concerned with factual matters, nor is it a relativist approach as it assumes that there is congruency between what the person says and what he experiences, both of which fit with the researcher's study (Harper & Thomson, 2011).

Further, since the research questions in this study were focused on how participants made meaning of the changes they experienced, both the phenomenological interpretative approach as well as the Interpretative Phenomenological Analysis (IPA) were deemed appropriate for the current study. Regarding IPA, this method of analysis was seen as appropriate because it focused on subjective experiences of participants and how they make sense of it, and also appeared to be ideal in exploring participants' subjective experiences and any patterns that may have emerged between them (Smith, Flowers & Larkin, 2010). Additionally IPA fit well with the researcher's epistemological position of phenomenology, as it enabled various interpretations of the subjective meaning of the data shared by both the participant and the researcher. The semi-structured interview technique was used in the current study, as it gives maximum flexibility to participants for expounding on their subjective experiences. At the same time this technique assisted the researcher to keep track of the content that was self disclosed in the session in the event that digressions take place (Smith et al., 2010).

Nevertheless, the researcher was very aware of her own affiliation to the faith and community of the participants and how this might influence the interpretations made of participants experiences (Smith et al., 2010). Specifically, given that the researcher was a member of the participants' religious community, she was aware of several benefits of this. One, that it was easier for her to be sensitive to the context of the study by empathizing with the participants, putting them at ease more easily, and showing respect to them during the interview process. Two, that she could more quickly establish a level of trust where participants could feel comfortable to share their experiences. Three, that she could readily understand certain religious and cultural concepts being described, which would also make it easier for participant's to express themselves. However, she was also aware of certain limitations to this. One, that participants may have experienced reluctance to express negative thoughts, attitudes, experiences and opinions freely with the researcher, due to concerns of being negatively judged or have their opinions rejected. Two, that the researcher had to be very careful not to make assumptions about the participants'

experience of either religion or depression, simply because she was also Ismaili and had clinical knowledge of depression. Three, that during the analysis stage, the researcher would need to put aside her own interpretations, explanations and experiences, and simply be a neutral and open listener to her participants' experiences.

Appendix D

Summary of Participant Information

Participant Pseudo-name	Gender	Age	Marital Status	Time held hostage in the mall (2-3 hours)	Hostage location in the mall
Parin	F	64	Married	2 hours	Cafe
Juliana	F	56	Married	3 hours	Washroom
Malek	F	28	Married	2 hours	Shop
Mahmoud	M	63	Divorced	2.5 hours	Cafe
Naira	F	60	Widow	3 hours	Strong room in bank
Shemina	F	50	Married	3 hours	Store

Appendix E

The PTG Topic Guide

Introduction

- Provide background to research/Purpose of interview
- Confidentiality
- Signed Consent, ability to withdraw at any point, does not need to answer all questions
- Answer any initial questions from participant

Background Questions

Age and Gender

Experiences

1. How have things been for you since the attack?

Probes

What has been difficult for you after the attack?

What has been beneficial for you after the attack?

2. How has your life changed since the attack?

Probes

How has your sense of world view changed since the attack?

How has the meaning of your life changed since the attack?

3. How has your faith changed since the attack?

Probes

Have your religious beliefs changed? In what ways?

Have your religious practices changed? In what ways?

4. How have your relationships changed after the attack?

Probes

Have your relationships changed with your family? In what ways?

Have your relationships with friends changed? In what ways?

Have your relationships with colleagues at work changed? In what ways?

5. How has your sense of purpose changed since the attack?

Probes

How has your sense of priorities changed after the attack?

How has your sense of the future changed since the attack?

Closure

Appreciating the interviewee and thanking him/her for giving their time and for sharing their experiences so openly.

Repeat the pact of confidentiality made earlier. Review the consent form and provide debriefing: Answer any questions/queries they may have and ensure to leave contact details should they need to reconnect.

Explaining what happens next (feedback, data analysis, dissemination of findings).

Appendix F
ETHICS APPROVAL DOCUMENT



UNIVERSITY OF
LEICESTER

**Department of Neuroscience,
Psychology & Behaviour**

College of Medicine, Biological Sciences &
Psychology

Maurice Shock Medical Sciences Building

PO Box 138

University Road

Leicester LE1 9HN

UK

T +44 (0)116 252 2922 (*Departmental Enqs*)

F +44 (0)116 252 5045

9th August 2016

To Who it may concern

Re: Nazira Mawji

Ethics Application Number – 978-nim4-School of Psychology

Title: Posttraumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community.

I confirm that the above student was granted ethical approval on the 30th November 2015 of her application.

If any further information is required please do not hesitate to contact me.

Best wishes

Joy Kocik

Administrator for Department of Neuroscience,

Psychology & Behaviour – Ethics Committee

Ethical Considerations in the Current Study

Informed Consent

All individuals who were interested in participating in the study were informed about the purpose and nature of the study through a Letter of Information and a Participant

Information Sheet. They were assured through both documents and verbally by the researcher that participation in the study was entirely voluntary, and that withdrawing from the study or refusing to participate at anytime was their right. On the day of the interview, the researcher obtained permission to audio record the session and informed participants that only the researcher, the researcher's supervisor and the participants themselves would have authority to listen to their own recordings. They were also informed that the audio recorder could be turned off at any time during the interview and that their privacy would be respected at all times. Interested individuals were given enough time for them to decide if they wanted to participate, before scheduling an interview with the researcher. Interested individuals were also given the chance to ask questions they may have had about the research study. Finally, a contact within the University was given to them to report any concerns they may have had about the study.

Confidentiality

First and foremost, participants were informed that all information collected for the study was kept strictly confidential. Further, that the data collected from the interview was used for research purposes only, and that neither participants' names nor any other identifying information would be used in any publication or presentation of the results. They were notified that the data would not be used for future studies and no further ethical approval would be sought. They were also informed that Dr. Stephen Melluish, the researcher's supervisor, was authorized to look at some parts of the data collected for the study, would be involved in the supervision and assessment of the study and may have access to the anonymised transcripts of the interview. Additionally, that all recordings, transcripts and other research materials would be securely stored in a locked filing cabinet. They were further informed that all recordings, transcripts and other research materials would be locked in a filing cabinet, and, in keeping with the University's requirements, the data would be destroyed after seven years. All this information was communicated verbally by the researcher as well as through the Letter of Information and the Participant Information Sheet.

Potential Distress

The aims of the current study were to examine changes that took place in Ismaili adult survivors following the Westgate Mall Terror attack and the focus was on growth and positive change. Hence, this research was not seen to cause or induce harm or distress for any of the participants. However to safeguard against any unexpected distress that may have arisen, several measures were taken by the researcher. First, pre-session stabilization techniques and post-session debriefing were used for the participants. Second, prior to the commencement of the interview, a Participant Information Sheet and a Letter of Information was emailed to the research participants outlining the study, its purpose and specifically emphasizing that the participant may withdraw from the study at any point in time without having to give a reason even after signing the consent form. Third, all participants were reminded that participation was totally voluntary, that they had the right to decline answering any question, and were given the address of the University in case they had any concerns which they wished to report regarding the study. Fourth, names of credible counselling centres were made available to each participant at the end of the interview in case they needed it. Fifth, throughout the process, the researcher ensured that all participants were treated with due respect, unconditional positive regard and maintained

transparency and absolute confidentiality. Sixth, the participants were given contact details of the researcher in the event that they needed to contact the researcher at any time. Lastly, the researcher was prepared to use techniques such as deep breathing, visualization and relaxation during the session, in case there was a need.

Appendix G

Posttraumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community

Information Poster

You are invited to participate in a research
study on:
Posttraumatic Growth After Westgate

I am interested in interviewing Ismaili men and
women about their personal experiences of change that
may have taken place in their life and in themselves
since the Westgate attack.

You are invited to take part in this study if you:

- ❖ Are fluent in reading and speaking English
- ❖ Are aged between 18-65 years
- ❖ Were present for 2-3 hours at the Westgate Mall
during the attack
- ❖ Currently reside in Nairobi

If you wish to take part, have any questions about this study,
or would like to inquire more about it, please email me on:
mawji.nazira@gmail.com or call me on
0733-750-409.

Thank you, Nazira Mawji

Appendix H

Posttraumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community Letter of Information

My name is Nazira Mawji and I am a doctoral student in the Applied Psychology program at the University of Leicester. I am conducting research on posttraumatic growth among members of the Ismaili community who survived the Westgate Mall terror attack in September 2013, and would like to invite you to participate.

The aim of this study is to investigate the experiences of recovery for adult, Ismaili survivors of the attack, and to understand how the survivors made meaning of their experiences following the attack.

If you are willing to participate in this study then I would like to ask you some questions about your personal experiences of change that may have taken place in your life and in yourself since the attack. During the interview, which will last for approximately 60 minutes, I would like to give you the opportunity to share your thoughts and experiences. If you agree, I will audio record our session so that I can remember what we talked about. These recordings will be transcribed.

Data that is collected through the study will be kept with strict confidence. The information I will collect will be used for research purposes only, and neither your name nor any information which could identify you will be used in any publication or presentation of the results. The data will not be used for future studies and no further approval from the ethics committee will be sought. Dr. Stephen Melliush, my supervisor, is authorized to look at some parts of the data collected for the study, will be involved in the supervision and assessment of the study, and may have access to the anonymised transcripts of the interview. Additionally, all recordings, transcripts and other research materials will be securely stored in a locked filing cabinet. In keeping with the University's requirements, the data will be destroyed after seven years.

Although the risks of participating in the study are minimal, if for any reason you experience any distress, you will be directed to local resources that can help you. Participation in this study is totally voluntary. If you choose to talk with me, you can always change your mind at any time, without needing a reason. You can also refuse to answer any question or withdraw from the study at any time, without needing a reason. When the project is over, you can get a copy of the results and of what I learned if you wish.

If you have any questions about this study, please contact me on 0733-750-409 or mawji.nazira@gmail.com.

This letter is yours to keep for future reference.

Thank you
Nazira Mawji

Appendix I

Posttraumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community Participant Information Sheet

Name of Researcher: Nazira Mawji

I would like to invite you to participate in my research investigation. However, before you make a decision about whether or not you would like to participate, I would like to share with you why the research is being done and what your involvement would be, should you decide to participate. I will be happy to go through the information sheet together with you and answer any questions you have. Please feel free to talk to others about the study if you wish and please ask me if there is anything that is unclear for you.

What is the purpose of the study?

The aim of this research study is to explore the experiences of recovery for adult, Ismaili survivors of the 2013 Westgate Mall terrorist attack in Nairobi. It also aims to understand how the survivors made meaning of their experiences following the attack.

Why have I been invited?

You are an adult Ismaili, who was present at the mall for approximately 2-3 hours during the attack. I am also inviting 6-8 other individuals like yourself to take part in this study.

Do I have to take part?

You are free to decide whether to participate or not. If you decide to participate, then I will give you this information sheet to keep, and I will request that you kindly sign a Consent to Participate Form. However, even after signing this form, if you still decide to withdraw from the study at any time, you are free to do so without giving a reason. Please note that your legal rights will not be affected by this.

What will happen to me if I take part?

I will arrange an interview with you on a day, time and place that is convenient for you. This interview, which will last for about 60 minutes, will be your only involvement in the study. There will be no additional meetings which you will be required to attend. During the interview, I would like to ask you a few questions about your personal experiences of change that may have taken place in your life and in yourself since the Westgate Mall attack.

Expenses and payments

In this study, participants will not be given any payment for participating in the study. However, for any travel that is incurred due to participation, then paying for travel expenses will be offered.

What are the possible disadvantages and risks of taking part?

The research goals of this study are to examine changes that have taken place in adult Ismaili survivors following the Westgate Mall Terrorist attack. The focus of this research is

primarily on growth and positive changes. Hence, it is not anticipated that this research should cause or induce harm or distress to you. However, to safeguard against any unexpected distress that may arise, several measures will be taken. For instance, during the session, techniques such as deep breathing, visualization and relaxation will be utilized should there be a need. In addition, pre-session stabilization techniques and post-session debriefing will also be used for you. Further, prior to the commencement of the interview a Participant Information Sheet and a Letter of Information will be emailed to you outlining the study, its purpose and specifically emphasizing that you may withdraw from the study at any point in time without having to give a reason even after signing the consent form. Since participation is totally voluntary, you have a right to decline answering any questions and you will also be given the address of the University should you have any concerns which you would like to report regarding this study. Names of credible counseling centres will also be made available to you at the end of the interview should you feel that you need them. Throughout this process, I will ensure that you will be treated with the utmost respect and unconditional positive regard. Further, I shall maintain transparency and absolute confidentiality at all times. Lastly, you will be given all my contact phone numbers and email address should you wish to contact me at any time.

What are the possible benefits of taking part?

Results from this research are hoped to benefit the entire Ismaili community on a global scale in the future, as changes of growth that are identified in the Ismaili adults following this terrorist attack can be shared with other therapists for the benefit of other Ismaili survivors of terrorism. For you, on an individual level, the benefits would appear to be able to share your experience and to be actively listened to in a non-judgmental atmosphere of understanding and confidence.

What happens when the research study stops?

This research study will be written up as a thesis for the doctoral studies of the Applied Psychology program at the University of Leicester, and will be submitted for publication in a peer-reviewed journal. The findings of this study will be given to you and to The University.

What if there is a problem?

Should you at any time during this study feel a sense of discomfort, uneasiness or disrespect, please feel free to connect with me and I shall do my best to resolve the problem. However, if my answers are not satisfactory for you and you wish to make a formal complaint, you can do so by directly contacting the University of Leicester.

Will my taking part in the study be kept confidential?

First and foremost, all your information collected for the study will be kept strictly confidential. Further, that the data collected from the interview with you will be used for research purposes only, and that neither your name nor any other identifying information about you will be used in any publication or in the presentation of the results. Your data will not be used for future studies and no further ethical approval will be needed. Dr. Stephen Melliush my supervisor, is authorized to look at some parts of the data collected for the study and will be involved in the full supervision of this study. He may have access to the anonymised transcripts of the interview. Additionally, all recordings, transcripts and other

research materials will be securely stored in a cabinet and, in keeping with the University's requirements, the data will be destroyed after seven years. All this information will also be verbally communicated to you and through the Letter of Information and the Participant Information Sheet. Your contact details will be kept for 30 days after the end of the study so that I can contact you about the findings of the study. Should you wish not to be contacted, I will also respect that.

What will happen if I don't want to carry on with the study?

If you wish to withdraw from the study at any point your decision will be respected and accepted. Your legal rights will not be affected in any way, you but your information may still be used for the study, as the data collected to the point of your withdrawal cannot be eliminated.

Involvement of the General Practitioner/Family doctor (GP)

There will be no involvement of a General Practitioner or Family Doctor.

What will happen to the results of the research study?

Since this research study is being carried out as part of my doctorate degree, the results will be submitted to the University of Leicester in October 2016. If you wish to receive a copy of the results when approved, I shall be happy to make them available to you. Once again, to reiterate that no information identifying you any way will appear in the reporting or publishing of the study.

Who is organizing and funding the research?

The research is being organized by myself and my supervisor, and the study is self-funded.

Who has reviewed the study?

This study has been reviewed and given favorable opinion by the University of Leicester Ethics Committee.

Further information and contact details

Nazira Mawji

Email: mawji.nazira@gmail.com

Phone number: +254734332333

Appendix J

Posttraumatic Growth following the Westgate Mall Terrorist Attack: A study of the Ismaili community Consent to Participate Form

I have read both the Participant Information Sheet and the Letter of Information. I have been explained the nature of the study, and the researcher has satisfactorily answered all my questions. By signing this form, I agree to participate in the above study, but also understand that I have the right to withdraw from the study at any time.

Do you give permission for me to tape record our discussion? YES NO _____
(please circle and then initial)

Name (please print): _____

Signature: _____

Appendix K

Sample of Coding Process: 1

Original Transcripts	Exploratory comments and ideas	Summary/ Codes	Emergent Themes	Subordinate Themes	Super-ordinate Themes
<p><i>"...now my girls and I have become even closer...we take care and lookout for each other, so, I got a lot of support from my family and friends, even my work colleagues...we had people coming home to see us, we had overseas calls, asking if we were okay and that really helped..." (Parin, 59-65)</i></p>	<p>A stronger sense of concern and compassion for her daughters</p> <p>This concern is reciprocal as "we take care of each other"</p> <p>Feeling supported by the concern and help received from friends, family and colleagues.</p>	<p>A new stronger bond was forged between mother and her daughters.</p> <p>Being supported helped to feel re- connected to society and thus decrease stress.</p>	<p>Stronger relationships with family members</p> <p>The feeling of re-connection with family, friends, others through showing care and concern for them.</p>	<p>Family relationships reinforced.</p> <p>The power of social support in overcoming distress.</p>	<p>A renewed value for relationships.</p>
<p><i>"...I ask now, that couldn't I put my money to better use now? I think also that you realize that God has blessed you but there are some less fortunate around you that need help...so maybe you look at the other side of your life and say how can I give back to mankind?" (Naira, 124-127)</i></p>	<p>Looking at life from point of view of the less fortunate</p> <p>A new wanting to help and share her resources with them.</p>	<p>A sense of giving and receiving</p> <p>Questions how to give back to less fortunate members of her society</p> <p>Values the less fortunate of society more</p>	<p>Needing to give back as relationships become more important and valuable.</p>	<p>A desire/need to give back</p> <p>Valuing relationships more</p>	

Sample of Coding Process: 2

Original Transcripts	Exploratory comments and ideas	Summary/ Codes	Emergent Themes	Subordinate Themes	Super-ordinate Themes
<p><i>"...I'm grateful for what I have, but not that I need lavish things...even the way I eat has changed...I want to eat less and eat simple so I can meditate better...so my thinking about all that has changed...(Naira, 121-123)</i></p>	<p>A sense of gratitude for what she has, comes with being simple and needing less, especially materially and physically</p> <p>Develops a desire to re-focus on the spiritual aspect of life.</p> <p>Feeling blessed by God and recognizes how her thinking has changed</p>	<p>Feeling fortunate for having her life and her behavior and thinking reflects this</p> <p>Feels that God has blessed her</p>	<p>A new sense of gratitude for her life and what she has</p> <p>Blessed and appreciates what she has</p>	<p>Appreciating life and oneself.</p> <p>An attitude of gratitude.</p>	<p>New Appreciation for Life</p>
<p><i>"...So life is short, you don't know what will happen, make the most of it...enjoy it, everyday...uh...take it as today is the last day...that's how it should be, you know? Enjoy it while it lasts...there's a new appreciation for life..." (Parin, 38-43)</i></p>	<p>The unpredictability of life and the realization that it is limited in time makes her want to live a fuller life.</p> <p>Also making time for enjoyment has become a priority.</p>	<p>The value for time and life has increased, especially if its the last day.</p> <p>Wanting to engage in life fully and enjoy its fruits.</p>	<p>Appreciating life takes on a new significance.</p> <p>Not taking life for granted; it could be the last day</p> <p>Enjoying it while it lasts</p>	<p>Take it as today is the last day.</p>	

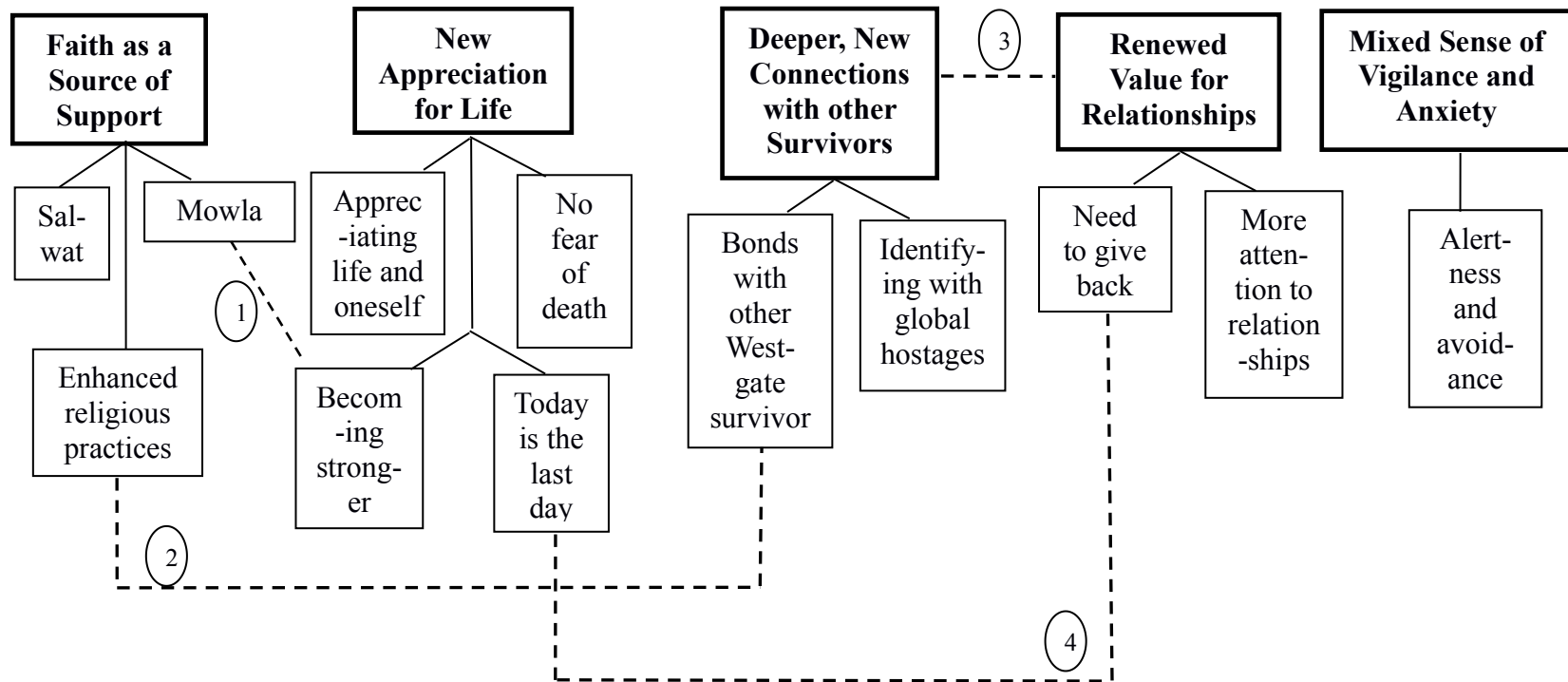
Appendix L

An Extract from the Reflective Diary of the Researcher

...I am becoming aware of the narrative being repeated from different angles as I listened to the fourth participant. I notice how change following recovery from the same incident was experienced in so many different ways and this makes me wonder how dynamic human beings really are. I think back to my own experience of hearing about the Westgate attack on the news and now feel tremendously grateful for my own life. I feel connected to the participants because they are Ismaili like myself and are wives and mothers, like myself. As I progress through the interviews, however, I notice that while I feel connected with my participants, in some way, I also begin to feel detached, which helps me to really listen to them, observe their body language, and learn from them...

Appendix M

Diagram of Theme Connections (please see explanations of connections over-leaf)



Key:

Bolded text boxes indicate super-ordinate themes

Unbolded text boxes indicate subordinate themes

----- indicates connection between themes

Explanations of Theme Connections according to Boxed Number

- 1) There was a connection between the subordinate themes of 'Centrality of Mowla' and 'Becoming stronger' whereby the participants' firm belief in their Mowla as their protector enabled them to develop a sense of continued inner strength.
- 2) A connection between the subordinate themes of 'Enhanced religious practices' and 'New, deeper bonds with other Westgate survivors' was apparent as engaging in religious practices, such as attending the *Jamat Khana*, helped participants to forge deeper bonds between themselves and other Ismaili survivors of the attack.
- 3) A further connection was observed between the super-ordinate Themes of 'Deeper, New Connections with other Survivors' and 'A Renewed Value for Relationships'. Specifically, the former involved new context-related relationships that developed as a result of the attack, and the latter involved a positive change to existing relationships.
- 4) The subordinate themes of 'Today is the last day' and 'We need to give back' showed a connection in that as participants became more aware of the limitation of time and the shortness of their lives, they became motivated to give back to society.

Part C: Service Evaluation

**An Evaluation of the Psycho-social Interventions Provided by the Community
Counseling Services (CCS) to Adult Ismailis with Physical Disabilities:
Perspectives of both groups.**

Executive Summary

Research in the field of physical disabilities has largely indicated that factors such as self-esteem, empowerment, inclusion and physical activity positively contribute to the well-being of individuals with physical disabilities (Jalayondeja, Jalayondeja, Suttiwong, Sullivan, & Nilanthi, 2016; Raymond, Grenier, & Hanley, 2014; Terrill et al., 2015). In the national context, while several associations for individuals with physical disabilities do exist, the current challenges of funding, capacity, and a lack of service providers in rural areas of the country leave many Kenyans with physical disabilities unassisted (Monk & Wee, 2008; Jenkins et al., 2010). Given these issues, the Ismaili community in Nairobi developed and carried out psycho-social interventions specifically for Ismaili adults with physical disabilities through the Community Counselling Services (CCS). CCS outlines three objectives of working with this sector including raising their self-esteem, increasing a sense of inclusion within the Ismaili community, and improving social relationships. Given that there is no research on this sector of the Ismaili community in Kenya, the primary aim of this study was to explore Ismaili adults with physical disabilities' and CCS members' experiences of partaking in the psycho-social interventions, and to evaluate the extent that these interventions meet their objectives. The researcher interviewed participants through two focus groups of six participants each, using a general framework of topic-focused questions, and thematic analysis to analyze the data. Six themes emerged from the data and the findings indicated that only two out of the three CCS objectives were currently being met. Four themes emerged commonly in both focus groups, while two were different. These findings were reviewed in light of the existing literature and a critical appraisal of the study was included. The findings will be formally fed back to the CCS accordingly.

1. Introduction

The International Classification of Functioning, Disability and Health (ICF) is the framework used by the WHO when measuring health and disability at both larger population as well as individual. Currently, the framework is also the internationally-accepted standard to define and measure disability and health (“International Classification,” 2016). ICF developed a conceptualization of disability based on the bio-psycho-social model, which is an integration of the medical and social aspects of a person’s life. According to this conceptualization, disability is viewed as an outcome of interactions between health conditions, such as diseases, injuries and disorders, and contextual factors, which include environmental factors, such as social attitudes and terrain, and personal factors, such as gender and age. Further to this, ICF outlined three levels of human functioning and noted that a disability involves a dysfunction in one or more of the three levels. The three levels are impairments, activity limitations and participation restrictions. Impairments include problems related to the function or structure of the body, such as a significant deviation or loss, activity limitations involve challenges an individual may experience when carrying out psycho-social interventions, and participation restrictions involve difficulties which an individual may have in involvement in life circumstances (Stucki et al., 2002). The current study will focus on individuals with physical disabilities.

While research has focused on defining the term ‘disabilities,’ significant literature has also explored the psycho-social aspects of disability and the importance of psycho-social well-being for individuals with physical disabilities (Mejias, Gill, & Shpigelman, 2014; Yeager, Kaye, Reed, & Doe, 2006). For example, research looking at physical activity, self esteem and the quality of life among people specifically with physical disabilities indicated that individuals who mentioned having a good quality of life also showed high daily psycho-social interventions. Further, that daily psycho-social interventions and self esteem explained the quality of life whereby individuals mentioned that they did not feel inferior to others and were proud to be independent. These interventions included skills training that assisted with everyday life management strategies, engaging in different types of social activities which gave the person an active role, and participating in creative art therapies (Jalayondeja et al., 2016). Additional research looking at community involvement of adults

with disabilities found that creating an inclusive environment, increasing self determination, empowerment and identity integration were requisites for a meaningful involvement for the participants (Raymond et al., 2014). In addition, a study by Terrill et al. (2015), indicated that younger and middle-aged individuals with disabilities may be especially impacted by low levels of happiness. Further, that they may find benefit from participating in psychological interventions that provide meaning and purpose in life while increasing one's overall state of well-being.

1.1 National Context

The ICF model specifically refers to the attitudes of community members and of society which can influence the ability of people with disabilities to feel accepted and integrated in the community, by impacting self-efficacy and improving their social and physical surroundings. In Kenya, several associations and organizations providing services for individuals with physical disabilities have mentioned this aspect of integration in their list of services. For example, the Association for the Physically Disabled in Kenya (APDK) provides wheel chairs and other appliances for the mobility of the physically disabled persons. This outreach program is done through the Bondo District Hospital in the Western Province and deliveries are made once every three months. The hospital further provides physical therapy and medical support to disabled persons although the distance to the hospital makes it inaccessible to many. The National Spinal Injury Hospital is the only hospital of its kind in Nairobi and the wider East African region. The hospital provides treatment for all four types of spinal injury, namely, cervical, thoracic, lumbar and sacral injuries. At the hospital patients are provided with rehabilitative care through multi-disciplinary services, but the capacity to bed patients is limited to 30 patients at any one time (Kweyu, 2013).

However, the majority of the service providers for this population are based in Nairobi, the Capital city, which drastically limits the availability of these services to adults with physical disabilities in other parts of the country (Jenkins et al., 2010). Further, health care in Kenya is predominantly government funded and the country's health care system, including services for physically disabled individuals, operates under extremely resource-restricted conditions, regarding capacity, finances and infrastructure. Thus, the focus of the service providers has largely remained on rehabilitation services, and has

neglected aspects such as integration with society and psycho-social well-being (Monk & Wee, 2008; Kilima & Jenkins, 2010).

1.2 Local Context

The Ismaili community is a minority faith-based community within the Shia branch of Islam. It is estimated that approximately one fifth of the world's Muslim population are Ismailis and are bonded through their allegiance to their spiritual leader, His Highness The Aga Khan IV (Daftary, 1998). The Ismaili population in Kenya approximates to 4,000, of which half reside in Nairobi (Srivastava, 2013). Currently, the total number of Ismaili adults with physical disabilities living in Nairobi is 22. Noting that there are extremely limited services specifically focusing on the psycho-social health of such individuals, the Community Counseling Services (CCS), a voluntarily run Ismaili counseling center in Nairobi, includes in its mandate, a provision of psycho-social interventions for this group of individuals (CCS, 2015).

CCS members are largely drawn from the Ismaili community and are individuals qualified in counselling to a Masters level, who offer their services voluntarily to the community members including the segment of physically challenged persons. It was originally initiated by the Aga Khan Social Welfare Board of Kenya to help address mental health problems in the community. CCS was established to provide a climate of awareness as well as a confidential and non-judgmental space to talk. CCS comprises of eight Ismaili and three non-Ismaili counsellors, of whom nine qualified and two lay counsellors. The service outlines three objectives of working with individuals with physical disabilities, which are to raise their self-esteem, to increase their sense of inclusion within the Ismaili community, and to improve their social relationships. The service tries to achieve this through several psycho-social interventions such as arranging two social trips a year, holding several motivational talks on topics such as the benefits of laughter, self-compassion, and positive thinking. Also arranged are weekly yoga sessions, one annual dinner, and visits to other institutions that cater to individuals with disabilities, such as orphanages for children with disabilities or schools for the blind, throughout the year (CCS, 2015). Although these interventions are highly popular among this segment of the community, no formal evaluation has been carried out regarding the experiences of this segment and the extent to which the interventions meet their intended objectives.

2. Study Aims

The aim of this study was to explore the experiences of both Ismaili adults with physical disabilities and of CCS members with regard to the CCS psycho-social interventions. Specifically, the study aimed to evaluate the extent to which these interventions meet their objectives of raising Ismaili adults with physical disabilities' self-esteem, of increasing their sense of inclusion within the Ismaili community, and of improving their social relationships. The aim also included suggesting recommendations for improvements of the interventions, and contributing information to future research studies in the area of physical disability within the Ismaili community. Given that there is no research on this sector of the Ismaili community in Kenya, and that they are often stigmatized and ostracized by other able members of the community, it is necessary to evaluate whether the services that are provided for them are actually meeting their objectives for this population, and if not, what recommendations can be implemented for further improvement.

3. Method

3.1 Participants

The sample consisted of six Ismaili adults with physical disabilities and six CCS members. Of the group of adults with physical disabilities, two were male and four were female, and their ages ranged from 34 years to 58 years. The physical disabilities of the participants in this group included paraplegia, paralysis, limb deformities and absent limbs. The sample group of these adults with physical disabilities in the current study was seen as largely representative of the 22 Ismailis with physical disabilities in several ways. One, the physical disabilities of the participants were varied and largely representative of the larger group. Two, the participants were living in different residences and areas of the city. Three, participants' ages and genders were mixed, as is the larger group. However, one disability that was not represented in the current study was deafness, due to reasons of participation eligibility, which is explained below. Of the group with CCS members, five were female, one was male, and the ages ranged from 32 years to 60 years. The five females were professionally qualified counselling psychologists and the male was a lay counsellor. Further details of the participants are given in Table 1 and Table 2 below³.

Ismaili adults with physical disabilities were eligible to participate in the study if they had a medically diagnosed physical disability, had regularly attended the CCS psycho-social interventions over the past two years, and could speak and understand English. They were not eligible to participate if they had a physical disability which prevented them from being able to participate in the interview (e.g. deafness). CCS members were eligible to take part in the study if they had regularly attended the CCS psycho-social interventions for the past two years, and could speak and understand English. The researcher was interested in obtaining the views of both groups on whether the psycho-social interventions met their objectives. The reason for having two groups was to get a more balanced and objective view of the interventions. To best achieve this, the researcher opted to conduct two focus groups, one for each set of participants. As noted above, six individuals participated in each focus group. According to Carlsen and Glenton (2011), there is no consistent reporting for a specific number of participants to be included in a focus group and most studies that have used this method have shown poor and inconsistent reporting of focus group sample size.

³ Pseudo- names have been used to protect participant confidentiality.

However, general guidance indicates a minimum of 4 and a maximum of 12 participants per group (Carlsen & Glenton, 2011).

Table 1: Participant Information: Ismaili Adults with Physical Disabilities

Name	Gender (M/F)	Age (yrs)	Length of time involved with CCS (yrs)
Zera	F	58	5
Shamim	F	34	8
Sultan	M	36	7
Shairose	F	40	10
Rohan	M	42	8
Anar	F	41	8

Table 2: Participant Information: CCS Members

Name	Gender (M/F)	Age (yrs)	Professional/ Lay	Type of Professional	Length of time volunteering with CCS (in yrs)
Aryana	F	32	Professional	Counselling Psychologist	8
Kassam	M	58	Lay		5
Nabat	F	55	Professional	Counselling Psychologist	12
Mehroon	F	60	Professional	Counselling Psychologist	12
Faiza	F	35	Professional	Counselling Psychologist	3
Shamira	F	39	Professional	Counselling Psychologist	3

3.2 Methodology

A qualitative approach was used in this study as it would help elicit detailed information about both groups' experiences of the psycho-social interventions. Quantitative methods would not have been able to achieve this as well, therefore making it difficult to create recommendations. Further, given that the study aimed to explore experiences of

participants in rich detail, thematic analysis was seen as a suitable approach. This approach was chosen because short pieces of information can be analyzed where the researcher has no preconceived theories about the themes that will emerge. Further, that thematic analysis can usefully summarize key features of a large body of data, offer a thick description of the data set, and can be useful for producing qualitative analyses suited to informing policy development. Finally, thematic analysis allows for social and psychological interpretations of the data, which would fit well with the aims of the current study (Braun & Clarke, 2006).

3.3 Procedure

Potential participants were personally explained the purpose and the method of the study to be undertaken and asked if they would like to participate. For the CCS members, this took place during the monthly meetings where all members were present. The researcher coordinated with the first six members who agreed to participate, and arranged a convenient day, place and time to have the focus group. The adults with physical disabilities were informed of the study during a recent, gathering at the Ismaili community hall attended only by Ismaili adults with disabilities. The researcher again coordinated with the first six individuals who agreed to participate, and arranged a convenient day, place and time to have the focus group. Both focus groups took place in the community hall on separate days, neither of which coincided with any religious functions or special occasions. On the day of the interview, each participant agreed to sign a Consent to Participate Form (Appendix A) and to have the interview recorded. At the end of the interviews, participants were debriefed and informed that their involvement in the study ended there.

3.4 Measures

Two focus groups were held with each set of six participants for one hour. One group was for the CCS members and the other for the Ismaili adults with physical disabilities. The researcher asked each group some topic-focused questions that facilitated a discussion about how well the CCS psycho-social interventions for the adults with disabilities met their intended objectives. All questions were topic-focused yet open-ended to allow participants to explore additional areas, as they came up. There were several reasons for using a focus group for data collection instead of interviews or questionnaires. First, a focus group enabled an overt interaction to take place between the research participants which was helpful to the facilitator in exploring their experiences and views on the subject

discussed. Second, it provided explicit use of the interactions to be used as research data (Kitzinger, 1994). Further, since the participants already knew each other and shared the same faith and culture, they could relate to the comments being made in the group and even to actual incidents that took place during any of the psycho-social interventions. Third, this method did not inconvenience the individuals with physical disabilities to write or sustain long periods of concentration.

3.5 Analysis

The analysis process was carried out inductively, where data was coded without trying to fit it into the researcher's analytic preconceptions or a preexisting theme (Braun & Clarke, 2006). The entire analysis process involved six steps, as outlined by Braun and Clarke (2006). The first step involved reading and re-reading the data so that the researcher could familiarize herself with the data, and note any interesting ideas. The second step was generating initial codes, which involved coding interesting features of the data in a systematic and consistent way over the entire transcript, collecting and combining data that was relevant to each code. The third step involved searching for themes, where the researcher collated codes into overarching themes that accurately reflected the data, by gathering all information that was relevant to each potential theme. The fourth step involved reviewing the themes, where the researcher examined how the themes supported the data, in terms of the coded extracts as well as the entire transcript. The fifth step was defining and naming the themes, which involved refining the specifics of each theme and developing clear names and definitions for each theme. The sixth and last step was producing the report, in which the researcher selected compelling data examples, went through a final analysis of selected extracts, and ensuring that the argument related to the research question.

4. Results

Following the analysis, a total of six themes emerged from the interviews. The first four themes were common among both groups of participants, and the last two themes were different. Descriptive accounts of all six themes are provided below with key quotations.

4.1 Upholding their Dignity

The first theme identified in both groups was upholding the dignity of the Ismaili adults with physical disabilities through kind and respectful treatment during the psycho-social interventions, making them feel worthy and unconditionally accepted. Zera's sense of dignity is reflected in her increased feeling of worthiness and acceptance for who she was as seen in her quote below.

"They welcome us very nicely on the trips, they serve us very nicely, so I feel wow, its nice to be treated this way, makes you feel worthy...even when I ask a question after some of these talks, they always answer me very nicely, nobody laughs at me." Zera

Shamim also commented on how the members made her feel accepted and respected.

"...you're treated like a human being. That is so powerful, and they talk to us kindly...or like on the trips they serve us first then they sit down and eat with you."

Shamim

Aryana, a CCS member, explains that interacting respectfully with this group of Ismailis makes them feel valued and equal to others, an experience this group was not often privileged with.

"I think one of the most important things is making them feel equal to others...you're helping them to feel important and valued and so what you're really saying is that I uphold your dignity as a human being." Aryana

4.2 Psycho-Social Interventions Perceived as a Booster

The second theme identified in both groups was that of perceiving the psycho-social interventions as a 'booster.' This overall boost was reflected in changes in the behavior, mood, and social interactions of the adults with physical disabilities. Shamim's quote below reflects this theme.

"From the talks and trips and all these psycho-social interventions we do, it makes me energized to help around the house, to help society as much as I can...I feel happy and feel better about myself, like I feel I can do things." Shamim

For Rohan, the trips even had a health benefit.

“When the time of the trips come and when I go out, my sickness is going out and I feel much better.” Rohan

Nabat, a CCS member, mentioned the positive changes she had observed among the adults with physical disabilities following engagement in the psycho-social interventions.

“These sort of psycho-social interventions bring them out again and again...some of them before were completely like dead wood, and now with the different initiatives and activities we organize for them, with the lunches and the talks and the yoga sessions, it pushes them to come out of their shell, so they started talking, singing and dancing again.” Nabat

Aryana compared the impact of the psycho-social interventions to a holiday, explaining how the concept of a brief period of change from daily life was similar to what she felt the adults with physical disabilities experienced when they partook in psycho-social interventions.

“...they’re [the psycho-social interventions] like a holiday...you get a break and it helps you to keep going and it renews your hope in life and helps you to manage the difficult times in life...you’re more energized, you’ve made new friendships, so life is not so bad anymore, its a bit more tolerable.” Aryana

4.3 Making New Friends

The third theme was the development of new friendships. The Ismaili adults with physical disabilities discussed learning new social skills and bonding with each other during the psycho-social interventions. Anar’s quote below reflects this theme.

“I find that I make new friends, I meet new people and I become close to them...I spend time with them, talk to them, then we dance together or sit next to each other or eat together, or even some other activity together, so you become closer.” Anar

Shamim’s quote supports Anar’s views.

“It helps to meet people, make new friends, new contacts, by socializing... like you’re all in the same boat going through the same experience, learning the same thing, so you feel together. You share together and that’s really powerful.” Shamim

CCS members observed that the adult Ismailis with physical disabilities strengthened their social skills and increased their tolerance of each others challenges. Mehroon’s and Faiza’s

quotes below reflect this theme.

“I think a lot of it is very social...they’re interacting with themselves, they’re interacting with us, the motivational talks are very interactive...it builds social skills by building their confidence to converse and communicate their needs, and when we praise them for it, they feel reinforced to socialize more.” Mehroon

“I would go beyond just making friends, because some of them don't get along with each other. But then when you bring them to these forums, they begin to understand the other person, that this person also has challenges and that's the reason why such-and-such a thing is happening to them” Faiza

4.4 An Increase in Confidence

All participants frequently used the word ‘confidence’ when talking about the changes they experienced after attending the psycho-social activities. Anar mentions this in her quote below.

“ when you go out, you recognize people and feel more confident to say hello. Also when they make us sing and dance on the trips...You feel free to do anything you like, so that gives you confidence to dance and talk outside as well.” Anar

Sultan’s quote below also depicts the confidence he felt following the psycho-social activities.

“My confidence goes up and I feel good because of the way we are treated. They [CCS members] are nice to us and they treat us with respect.” Sultan

CCS members also mentioned noticing a rise in confidence levels among the Ismaili adults with physical disabilities. Nabat’s quote explains this well.

“Now in our community in our festivals, I see them dancing now and doing rasra (traditional Indian dancing). Before they wouldn't come out, but now this is the confidence they have gained! What better to give them than self confidence!” Nabat

4.5 Inclusion within the Community

Not all themes were common among both groups. Two themes in particular were different. The first centered on inclusion within the community. Specifically, CCS members felt that the adults with physical disabilities were not fully integrated into the Ismaili community. However, while some members of the group with physical disabilities felt

included within the larger Ismaili community, the majority of the participants felt this was still lacking in their community experiences. In their extracts below, Rohan comments on feeling included while Zera discusses how she felt coldly excluded.

“...so you feel good that Ismailis are looking after Ismailis..and so you feel that yeah I am an Ismaili and I feel together with everyone else.” Rohan

“...they [able Ismailis] said no, we don't want any wheelchair people here [a show at the community hall]. Can you believe it? I was so upset, I never went, I just cried, I was so upset. So these people don't treat us well sometimes you know.” Zera

Nabat, a CCS member felt strongly that the Ismaili adults with physical disabilities were stigmatized and excluded by the community.

“ in terms of feeling included, the degree is very little...they still can't mix properly with the Jamat, and its not because of the Ismaili adults with physical disabilities but its the Jamati people who won't accept them. So I think the Jamat needs to be educated on how to treat them right.” Nabat

Kassam concurred with Nabat as is seen in his quote below.

“when they go to Khane, they are not mixing with counsellors but those are just ordinary people who don't really want to mix with them so they feel ostracized, and yes, they need to be educated on how to talk to them and help them.” Kassam

4.6 Inviting others to the Activities

Interestingly, both groups of participants requested the inclusion of other individuals on the days that the psycho-social interventions take place. While the Ismaili adults with physical disabilities were keen to invite their non-Ismaili friends with physical disabilities, the CCS members opted to have more Ismaili members on board. The quotes below capture this point.

“Also, we should include non-Ismailis who have physical problems...They are also suffering and when we go without them, they feel very left out.” Shamim

CCS members on the other hand wished to invite fellow able Ismailis to their functions and trips in an attempt to sensitize them to the needs and concerns of the Ismaili adults with physical disabilities. Aryana's quote reflects this theme.

“We should bring in a few members of the Jamat (Ismaili community) on these days to educate them and sensitize them to this group of Ismailis.” Aryana

5. Discussion

An analysis of the results using thematic analysis indicated that out of the three CCS objectives of the psycho-social interventions, only two were currently being met and that the third objective, which was inclusion of the Ismaili adults with physical disabilities within the larger community, was not fully being met. Recommendations for improvement of the interventions for adults with physical disabilities were suggested by both groups of participants and are detailed in later sections of this report.

The first significant point of discussion centers on the finding that Ismaili adults with physical disabilities are largely feeling excluded from the Ismaili community. Further, that this indicates that the CCS objective of enhancing integration of adults with physical disabilities within the community is not fully being met. Specifically, while some participants of the group of adults with physical disabilities felt included, the majority expressed feelings of exclusion. In addition, comments by the CCS members suggested that facing stigmatization and ostracization by the larger community, despite partaking in the CCS psycho-social interventions, were having negative social and emotional implications for the adults with physical disabilities. These views are concurrent with recent research in the field indicating that individuals with disabilities are particularly dis-empowered and isolated in organizations and communities and that this hinders, in turn, the ability to belong to a network of diverse and supportive friends (Fujimoto, Rentschler, Le, Edwards, & Härtel, 2014). One possible reason for the stigmatization of this segment by the Ismaili community may be attributed to the community's ignorance of and lack of sensitivity to their needs and concerns.

In addition, there maybe an underlying fear among the Ismaili community to engage with individuals who are physically 'different' from them, thus wanting to keep a safe distance from them. This is supported by the Social Identity Theory (Tajfel & Turner, 1986) which states that people without disabilities, and who might be more privileged, tend to relate to others without disabilities, thereby compartmentalizing individuals with disabilities into an 'out-group' category. This creates a culture of ignorance, misconception, stereotyping and stigma. To try and address this problem, the CCS members recommended the inclusion of more able community members to help educate and sensitize these members to those with physical disabilities. The rationale being that a direct social

experience with this sector would create an awareness of the needs and concerns of these individuals, thereby eliciting in them a deeper understanding of what these individuals routinely experience, both physically and socially. Perhaps CCS might consider addressing this through psycho-social interventions that help educate the community on the needs of those with physical disabilities and also to discuss the negative social impacts of stigmatization of this sector.

The second point of discussion relates to a sense of belonging to the group of disabilities itself. During the interviews, the Ismaili adults with physical disabilities suggested inviting their non-Ismaili friends with disabilities to their psycho-social interventions as a recommendation for improvements of the program. This is likely reflective of how the physical disability has shaped the way they think about their friends, as well as how they can relate to the sense of isolation experienced by their friends. Further, this recommendation could also have come up because the Ismaili adults with physical disabilities had felt the pain of discrimination and non-inclusion by their own community due to their physical appearance, disability and limited functioning. As a result, they may not have wished for their non-Ismaili friends to undergo a similar experience. This not only indicates a sense of identification and compassion they possess for others with physical disabilities, but also that their sense of belonging may not entirely be defined by faith. Other research has supported this. For instance, Hagerty, Lynch-Sauer, Patusky, Bouwsema and Collier (1992) defined a sense of belonging as “a person’s subjective experience of being valued by or important to others and experiencing a fit between one’s self and others around him/her” (Hagerty et al., 1992, p.173). In addition, research has also indicated that a low sense of belonging negatively impacts an individual’s physical and mental health (Fujimoto et al., 2014; Mejias et al., 2014). These findings raise concern for individuals with disabilities, who may frequently be denied community inclusion, a sense of being socially accepted, and the development of social supportive networks, and suggest that fostering a sense of belonging among them is important for their psycho-social well-being.

The third point of discussion concerns the group settings in which the psycho-social interventions take place, and the positive role this setting played in maintaining the psycho-social health of this group. For instance, the Ismaili adults with physical disabilities mentioned being able to openly share their personal experiences in the group which

fostered new social relationships. The creation of these new friendships and bonds also contributed to a positive atmosphere in the group. They further mentioned experiencing a sense of freedom in 'their' safe place (i.e. the group) as they felt free from judgments, criticisms and ridicule. This enabled them to be themselves and let go of any inhibitions, frustrations or stress that they held within which was very positive, as they partook in these psycho-social interventions. Similar views are supported by current research which indicates that support provided within a group of people with disabilities helps to shift an individual's self-concept toward confidence and pride as part of the disability community (Mejias, et al., 2014). This is significant because among the Ismaili participants, it seemed that forming a cohesive bond with other group individuals as a result of participating in the psycho-social interventions led to the incorporation of the disability experience as a shared and positive part of their identity.

Lastly, the current research findings should be interpreted in light of several study and methodological strengths and weaknesses. Regarding strengths, several steps were taken by the researcher to ensure quality of the study, as outlined by Braun and Clarke (2006). For example, the preliminary themes were discussed with a fellow doctoral student and with the supervisor as a quality check. Secondly, the researcher used reflexivity to acknowledge that her own beliefs may have influenced the way she made sense of and interpreted the data, and similarly how the content of the data may have influenced the researcher. Third, interviewing a highly homogeneous group ensured that the sample was appropriate for the purpose of the study. However, one limitation concerned the participant recruitment method. Specifically, selecting the first six individuals who opted to participate may have resulted in the sample consisting of more confident and extroverted individuals. Second, using a focus group may have hindered participants from expressing negative views and opinions for fear of being judged or criticized by other group members or the researcher. Third, the researcher acknowledged that working within the CCS while collecting data from its members and beneficiaries may have impacted the level of honesty participants displayed in their responses.

5.1 Clinical Implications

The findings from the current study offer insightful ways to help improve the service offered by CCS to Ismaili adults with physical disabilities. The main recommendations that

will be suggested to the CCS include:

- 1) To educate the larger Ismaili community in Nairobi on the needs of the Ismaili adults with physical disabilities, with the aim of sensitizing them to this sector of the community, thereby promoting inclusion within the community. This could be done perhaps through talks and trainings. The Ismaili community holds frequent talks, workshops and trainings in varied subjects for all ages within the community by the respective committees such as Womens, Youth, Economic, Health, Social Welfare, among others, and prominent speakers are invited. In this respect, the talks and trainings given by CCS professionals would be well attended and it is hoped that this would help bring about more positive attitudes towards adult Ismailis with physical disabilities.
- 2) To invite Ismailis from the larger community to work in collaboration with the CCS members during the psycho-social interventions. This would again be in an attempt to sensitize the Ismailis to those with physical disabilities and provide practical education about these individuals.
- 3) To propose the inclusion of the selected non-Ismaili adults with disabilities on the psycho-social interventions days.

5.2 Dissemination process

The findings of the current study have already been informally fed-back to the CCS, who have shown appreciation and eagerness to begin implementing the suggestions. In addition, the CCS will be sent a copy of the findings and an opportunity to formally make a presentation of the results to the CCS members is currently being organized.

6. Critical Appraisal

A reflection on the current study highlighted some important effects it had on the researcher. One was the positive and negative impacts that the psycho-social interventions had on the lives of the Ismaili adults with physical disabilities. Viewed positively, the researcher gained many new insights into the experiences and needs of these individuals and even the extent to which their needs are being met through the psycho-social interventions. On the other hand, the researcher gained a new awareness of the limitations of these interventions with regard to inclusion within the larger Ismaili community and that more time and effort needs to be directed towards improving this. Secondly, the stigmatization of adult Ismailis with physical disabilities by the community had the effect

of making the researcher feel more compassionate and empathic towards them. Furthermore, it has motivated the researcher to put in a proposal to conduct a talk for the Ismaili community on the impacts of stigmatization within the community. Talks on integration, mutual respect for fellow human beings and even perceiving differences as a strength rather than a weakness were additional topics that came to mind.

Regarding the interview process, the researcher recognized that it seemed to instill hope in the Ismaili adults with physical disabilities that they were given the opportunity to express their views and opinions openly and confidentially. They appeared hopeful that their sharing may result in some constructive changes for them personally, and in the context of the larger community. They further showed appreciation of being listened to in an atmosphere of respect and trust.

Being a member of the CCS group the researcher is also aware of communicating the findings and recommendations to the respective stakeholders with sensitivity. So far, CCS has responded positively to the informal notification of the findings of the current study and have expressed their desire to implement the recommended changes as soon as possible. This gives the researcher hope that on formal submission of the report all stakeholders will respond to it favorably.

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Appendix A

Evaluation of the Psycho-social Interventions Provided by the Community Counseling Services (CCS) to Adult Ismailis with Physical Disabilities

Consent to Participate Form

I acknowledge that I have been explained the nature and purpose of this study, and that all details of it have been fully explained to me. I also agree that the researcher has satisfactorily answered all my questions, and I agree to participate in the above study. I understand that I have the right to withdraw from the study at any time, and I do not need to provide a reason for this.

Do you give permission for me to tape record our discussion? YES NO _____
(please circle and then initial)

Name (please print): _____

Signature: _____

Part D: Critical Reflection

1. The Formation of the Research Idea

The research idea of examining post-traumatic growth in Ismaili adults based in Nairobi came from two sources. One, was from my professional work as I am a trauma specialist and have been working in the field of trauma since 1995 when the Rwandan genocide took place. Since then I have worked with the Somali and Sudanese refugees that had entered Kenya and with most major traumatic events that took place in Kenya, such as the American bomb blast in 1998 and the post election violence in 2008, among others. Most recently, I was involved in the healing process of individuals involved in the Westgate Mall terror attack and the Garissa University attack in Kenya, during which time I also worked extensively with the Ismaili community and became interested in their recovery process and experiences of PTG.

The second reason for examining this research was being an Ismaili, and realizing that there was no research in the area of trauma, terrorist attacks and PTG on the Ismaili community. This further motivated me to carry out research in this area. This was more so because Ismailis are frequently subjected to terrorist attacks and other types of trauma especially in the Middle East, Asia and Africa. I felt that the results of this research could be shared with professionals, both Ismaili and non-Ismaili therapists based in different parts of the world working with Ismaili clients. This may contribute towards enhancing therapeutic effectiveness. In addition, the Community Counselling Services (CCS), a voluntary, faith-based Ismaili counselling centre, was very involved in counselling Ismailis and members of other faiths and communities during the Westgate terrorist attack. The centre had requested further training in the field of trauma and especially in terrorism, so that they can reach out extensively to society at large. Thus, in carrying out this research, I felt that it would give me an opportunity to gain more knowledge and learn new skills and interventions in this field which I could then share with my colleagues at CCS and also join them in reaching out even more.

2. Methodological Considerations

One of the limitations of this research was the use of a poster on the *Jamat Khana* (Ismaili Mosque) notice board inviting participants to take part in the research. Although it proved a convenient way to obtain my sample, on reflection, I thought that it was quite possible that some, although very few, individuals who may not have attended the *Jamat*

Khana or may not have viewed the notice board during that time, may have missed seeing this poster. Secondly, since the sample consisted of participants who voluntarily signed up, it may well be that the sample was biased towards individuals who are more extrovert and thus, open to sharing their experiences. However, given that the *Jamat Khana* is the only location of the largest Ismaili gatherings, I realized that putting up a poster in this location would be the most effective and practical approach to obtaining participants for the study. Nevertheless, in future research projects, I shall be mindful of these limitations.

Since I was most interested in obtaining in-depth, unique experiences of individual adult participants belonging to the Ismaili community and who were held hostage at the Westgate Mall for 2-3 hours, I found the semi-structured interview method appropriate to use in this study as, while it provided some structure in the interviews, it also gave the participants room to openly share the richness of their narratives with me. Further, I felt that using the Interpretative Phenomenological Analysis approach to analyse the data derived from a qualitative study was very appropriate. Although, initially I found it to be quite a complex and confusing approach, it became easier as I persisted with it and in the end I began to value it as I identified the themes in my study through the process of coding.

3. Personal Reflections

In this section, I shall discuss the challenges I faced in conducting this research as well as the surprises I experienced along the way.

In conducting this research study, one of the challenges I faced was keeping a check of my own influences when working with participants' data. For instance, being an Ismaili and being able to relate very closely to the Ismaili culture and religion, I was aware of how easy it was for me to make assumptions about how my participants could use their religion and community support network to help them recover and grow from their experiences of the terrorist attack. Another example was that during the analysis process, I felt I had to actively constrain myself from using my clinical knowledge of trauma of making hypothetical diagnoses when immersing myself in the participants' data. Fortunately, I managed to overcome these influences and making assumptions about my participants, by engaging in supervision with my supervisor which helped to bring back the sense of objectivity within me. Further, in being able to discuss the process of coding as well as the emerging themes with my supervisor was extremely helpful and it provided valuable

insight into my analysis. In addition, I also discussed the emerging themes with a co-student in the doctoral program which again reinforced the sense of objectivity in my research. Third, I maintained a reflective journal throughout the research process to enable me to reflect on the different thoughts and feelings that I experienced, and more so when conducting the interviews and during the analysis stage. I found this process invaluable in giving me perspective on my research, distance from the participants' narratives, and to better cope with any issues such as counter-transference, that surfaced for me during the entire research process.

There were a couple of experiences that took place during the research which surprised me. First, I observed that during the interviews there was an openness by the participants to share information about the Westgate Mall attack which took me aback. To elaborate on this, even though I strictly did not ask participants questions about their experiences of being in the mall, since my focus was on growth, some of them brought it up themselves and wished to share this information with me without being overwhelmed. This made me realize how strong and resilient human beings are in living beyond trauma and tragedy. I developed a great respect for the participants in this process.

Another surprising experience was that despite going through the pain and suffering that this despicable act had inflicted on the participants and their loved ones, it seemed not to deter them from feeling compassionate and empathic towards the less fortunate in society. In fact, their own experiences seemed to increase their compassion for their fellow human beings. I wondered whether this was partly due to the identification process with the other hostages of experiencing losses together and at the same time feeling supported by one another during this ordeal. I also wondered whether this identification with other hostages took away the isolation and created compassion within the participants. Perhaps it also made them realize that not all human beings were terrorists nor had evil intentions which strengthened them and made them want to reach out to society, especially the marginalized. This realization seemed to reinforce their faith in mankind which was still intact, and was surprising but very powerful for me to observe.

Furthermore, while conducting this research, I noticed that most of the studies on PTG and terrorism were largely conducted among samples from Western countries and the focus of their research was also directed towards the populations residing in these countries. This

was surprising to me as a significant number of current terrorist acts in the world take place in non-Western regions such as the Middle East, South Asia and Africa. A certain amount of literature is available on terrorism resulting from the conflict in the Middle East, but once again the research largely focuses on Jewish samples. This makes me wonder whether the experience of PTG, which is currently very Western in its development and conceptualization, would be the same if similar research was carried out in countries such as Iraq, Syria, Pakistan and Afghanistan. It is quite possible that these populations may experience and understand growth very differently, given the differences in cultural, social and religious influences. This made me realize how important it is to conduct studies in these areas, so that clinicians, especially those living in these regions, can be more aware of how to help these survivors of terrorist attacks. On the same note, I was also surprised at the limited research conducted on the Ismaili community especially in the area of terrorism and PTG, especially since Ismailis have been affected by terrorism in countries such as Pakistan, Afghanistan, Tajikistan and even Syria. While this saddened me, it also encouraged me to consider sharing the findings of my study with the relevant stakeholders within the Ismaili communities in these troubled regions. It also made me think about holding workshops on PTG and terrorist attacks for clinicians working in this field of trauma and terrorism in non-Western contexts.

4. Learning Outcomes and Conclusion

In conducting this research, I felt privileged to have gained updated knowledge in the fields of terrorism and PTG. Learning about the research process overall was a new and growthful experience for me. Specifically, learning more about the different types of investigations that may be conducted, the different analytical approaches, the rigour of the research process, and also looking at how different cultural and religious influences may impact the outcomes of a study, were all very exciting for me. I now have a better understanding of qualitative research, what it entails and how it helps to explore in-depth experiences of individuals and understand how they find meaning in their experiences. In addition, I have gained significant knowledge in the area of PTG and how it is experienced within the Ismaili community. I understand now how faith can be an integral part of the Ismaili experience of growth following tragedy, which varies from the Western conceptualization of PTG.

Furthermore, this research project enabled me to look inward and notice how much I have grown since starting on it. I have found a change in my thinking skills, in that I have begun to practice more critical thinking in my life now, after beginning this research. I have also begun to check the credibility of information sources and analyze the applicability of clinical information more. I have learned so much about my own community and how they experience growth, relationships, religion, etc. In addition, since I am now more knowledgeable about PTG and I understand its implications, I shall attempt to bring this additional component into my clinical work when working with clients suffering from trauma. Also, in working with adult Ismaili clients henceforth, I feel I will be at an advantage as I now have more insights into what may be helpful in the healing process. I would further like to share this knowledge with other therapists, especially those working with Ismaili clients, to help create an awareness of possible interventions that could help members of the community heal from trauma.

I have also experienced how challenging it is to manage a doctorate program while continuing to work and shoulder family responsibilities. Sometimes, I would step back for a few moments and realize that being able to conduct this research while carrying the responsibilities of being a wife, a mother, running my own clinical practice as well as engaging in social work in the community has been quite a journey! However, this realization also gave me an insight into my own sense of self-determination and purpose in life. I would continuously remind myself of my original desire to engage in a research degree and how I had always hoped that continuously educating myself would enable me to more effectively help others. Specifically, my goal has been to reach out more, not only to the members of the Ismaili community, but even to society at large and particularly the disadvantaged in Kenya, who do not have the resources to seek counseling, and to try and help them in their healing of trauma. Thus, I had always understood that the more knowledge I can acquire in this field, the more effective I can be as a helper. In my personal life, the research has compelled me to become a better planner and organizer as I had to learn to create a balance between my personal and professional life. Furthermore, I realized that although this research study had its own challenges and felt overwhelming at certain times, I thoroughly enjoyed engaging in it and learning about so many new developments in this field.