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POSTTRAUMATIC GROWTH AND POSTTRAUMATIC STRESS SYMPTOMS: THE ROLE OF ETHNOCULTURAL IDENTITY IN A SOUTH AFRICAN STUDENT SAMPLE

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A research report submitted in partial fulfilment of the requirements for the degree of Master of Arts in Clinical Psychology in the Faculty of Humanities, University of the Witwatersrand, Johannesburg, 22nd of October, 2010.

Declaration

I declare that this research report is my own, unaided work. It has been submitted for the Master of Arts Clinical Psychology at the University of the Witwatersrand, Johannesburg, South Africa. It has not been submitted before for any other degree or examination at this or any other university.

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S. Moeti

October 2010

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1. INTRODUCTION

Theologians, philosophers and writers have explored and implicated the possibility for personal growth in life traumas. It is intriguing to think of the possibility that something that was initially perceived as threatening like a traumatic event can be transformed into something more valuable in one's personal life experience. Human resilience has often been tried through the devastating occurrences of major life events, thus bringing into view the psychological crises negated by traumatic events. The experience of trauma will necessitate psychological and physical distress in a number of ways. Thus it can be expected that "facing natural catastrophes, major losses, the death of someone we love, unexpected and prolonged unemployment, divorce, and any other trauma will painfully test our ability to cope"(Tedeschi & Calhoun, 1995, p.28).

Research suggests that a considerable proportion of trauma victims report at least some positive changes in some areas of their lives and that these positive changes seem to come as a result of their struggle with the aftermath. It is these positive changes that have been termed as posttraumatic growth. This does not in any way mean that the severity of the trauma is underestimated because there is the possibility that the severity of trauma may counterbalance the effect of the positive change that may have occurred (Tedeschi & Calhoun, 1995).

The phenomenon of posttraumatic growth has been studied in many Western countries with a paucity of such research in Africa, most particularly South Africa. McMillen (2004) proposed that the US culture promotes looking on the positive side of experience to a greater extent than other countries. Therefore McMillen (2004) suggested that the types of growth experienced by North Americans may be different from the growth experiences in non - US samples. Therefore, the aforementioned study proposes the need to conduct research using a culturally diverse South African sample. The current study seeks to determine whether there are ethnocultural differences in posttraumatic growth patterns and posttraumatic stress symptoms in the South African context.

Ethnocultural identity is a term that will be frequently used in this research. The term is not widely used and so its definition is possibly limited. For the purpose of this research, the term ethnocultural identity is viewed as appropriate to use because it captures the essence of the

South African population. Ethnocultural identity therefore does not place emphasis on physical characteristics but proposes that within different ethnic groups there are several cultural identities. Hecht and Ribeau (1991) delve into the sociocultural elements of ethnic identity in Blacks in America outlining the fact that it is wrong to assume that all Black people in America share a common ethnic identity. Banks (1981) as cited in Hecht and Ribeau (1991) suggested that "there is no one ethnic identity among Blacks, that we can delineate, as social scientists have sometimes suggested, but many complex and changing identities among them" (p. 503).

The focus of this research shifts from merely an ascribed ethnicity to a better defined ethnocultural identity. The definition that will be used states that ethnocultural identity is a combination of a person's ascribed ethnicity and a person's sociocultural background, tastes and preferences (Agadjanian & Qian, 1997).

2. LITERATURE REVIEW

2.1 Ethnic Identity, Cultural Identity and Ethnocultural Identity

The concepts of ethnic identity and cultural identity have been widely used by many authors and researchers. It is thus a requisite that in this present research the definitions of these words be reviewed in order to explain the use of the term ethnic identity which will serve as a variable in the present study. It would be noteworthy to first gain an understanding of the distinction between ethnic identity and cultural identity through its usage by different researchers. Phinney (1992) responded to the need to distinguish between race and culture by developing a model of ethnic identity.

Ethnic identity refers to an individual's sense of self in terms of membership in a particular ethnic group (Phinney, 1990). Rumbaut (1994) describes the term as one that is used to refer to one's self-label or group affiliation. Therefore he concluded that ethnic identity is generally perceived as incorporating various aspects, including self-identification, feelings of belongingness and commitment to a group, a sense of shared values, and attitudes towards one's own ethnic group. How an individual identifies with a group would provide insight into the dynamics that are involved in group identification. Duckitt, Callaghan and Wagner (2005) proposed that group identification could potentially be multidimensional in nature. They proposed that people might identify with groups in quite different ways, and that different dimensions of identification relate differently to out-group attitudes.

There have been no studies related to ethnic identity from a South African perspective, which is why in this study reference is made to Phinney who is an American author in the conceptualisation of ethnic identity. In her comprehensively reviewed studies of ethnic identity, Phinney (1990) pointed out that there are four distinct dimensions of ethnic identity, which are as follows; ethnic self-labelling or self-categorisation, attachment to the ethnocultural group, evaluation of the ethnic group(positive/negative in-group attitudes) and lastly involvement with the group and its cultural practices, ways and customs. Phinney (1992) has generated a measure for ethnic identity which takes into account the racial background of the participants. Phinney (1992) defines race as, a biological term reflecting basic genetic and physical differentiation. Ethnicity is another important aspect that Phinney (1992) factors into, describing it as a cultural term reflecting different groups within each racial category.

A more detailed description of ethnic identity has been defined as follows by the aforementioned author. Phinney (1992) states that ethnic identity is, "that part of an individual's self concept that derives from his or her knowledge of membership in a social group/s together with the value and emotional significance attached to that membership" (p. 156). Steward and Baden (2000) discussed the components comprising ethnic identity as including self-identification, language, social networks, religious affiliation, and cultural traditions and practices. These researchers propose that in order to gain an understanding of the term "cultural identity", the concept of "culture must be defined. Atkinson, Thompson and Grant (1993) define culture as the configuration of learned behaviour and results of behaviour whose components and elements are shared and transmitted by the members of a particular society. In view of this definition, Steward and Baden (2000) conclude that cultural identity is determined by the "particular society" to which the individual belongs. The society's behaviours, beliefs, rituals, values also play a role in defining that particular culture.

Ethnocultural identity is a concept that aims to consolidate the aspects of culture and ethnicity in an attempt to understand the interaction of factors that are involved in the process of ethnic identification. In this present study we will be looking at a combination of those elements of ethnicity and sociocultural background that compose an individual's sense of sharing a degree of sameness or oneness with members of a particular society category or group. Particular note should be taken to distinguish between ethnocultural identity and ethnocultural identification. Ethnocultural identity as suggested by Rummens (2003) is more of a label that is conceived as relational and contextual, whereas the latter ethnocultural identification refers to a classifying act that is inherently on a process level.

Ethnic identity is viewed as an important aspect of an individual's socialisation process. DeVos 1982; Gibbs and Hwang, 1989 in Spencer and Markstrom (1990) outline this by stating that ethnic group membership accords the individual a cultural identity, a sense of belonging and group pride, and a set of prescribed norms, values, and social behaviours. More particularly in view of this present study interest has been generated in terms of individual's response to traumatic events. How an individual perceives the world can be influenced by a number of factors and as such it is befitting to consider the role of ethnic identity in all of this. Gibbs and Hwang (1989) in Spencer and Markstrom (1990) propose than an ethnic identity affords a framework whereby one acquires a view of self, the world, and future opportunities. In addition it provides a structure for interpersonal relations and subjective experiences. They allude to the fact that ethnic identity has the potential of

providing a conceptual framework for interpreting the ongoing experience or "fit" between self and the environment. Thus in the context of a life altering experience and its aftermath ethnic identity could possibly be used as a framework of making sense and coping with the traumatic event.

In view of the aforementioned concepts it is important that these terms should not be understood at face value. Wilkinson (1986) understood ethnicity as being indicative of more than the personal distinctiveness derived from race, religion, national origin, or geography. He went further on to denote that it is the culture of people and is a very powerful yet indirect factor that helps shape values, attitudes, perceptions, needs, modes of expression, patterns of behaviour, and identity.

Wilkinson (1986) also took into account ethnicity from a clinical perspective and proposed that it involves conscious and unconscious processes that fulfil deep psychological needs for security, a sense of one's own proper dignity, and a sense of historical community as well. This present study investigates those aspects of culture that promote optimal functioning, more specifically the positive aspects of surviving a trauma. Wilkinson (1986) supports the notion that culture is of significant value to the quality of life and the mental health of all individuals. He presents the argument that mental health professionals must first be aware of the positive aspects and strengths to be drawn from a particular group identity and then incorporate these elements into their treatment modalities.

2.1.1 Models of Ethnic Identity

The social adaptation perspective presents the view that adhering to cultural values and beliefs is a source of strength that allows people and groups to adapt and maintain "resilience, flexibility, and cohesion in the face of changing social environments and economic circumstances" (Berardo, 1991, p.6 in Holleran & Waller, 2003). This is the view point that will be advocated for in this study regarding the importance of culture. Holleran and Waller (2003) from this point of view conclude that culture is not "baggage". But rather that it is a sustaining system. Also consistent with this perspective is the strengths perspective (Saleebey, 2002) which acknowledges, respects and makes use of culture as the basis for identity and as a source of valuable resources for coping and adaptation.

Phinney's (1992) measurement of ethnic identity is founded on the premises of the social and ego identity theories (Erikson, 1968; Marcia, 1980; Tajfel, 1981). The first component in Phinney's identity model has been broken down into ethnic identity achievement (based on social identity theory; Tajfel & Turner, 1986 in Ponterotto, Gretchen, Utsey, Stracuzzi and Saya , 2003) which Ponterotto et al.(1986) describe as inclusive of behaviours and attitudes reflective of ethnic identity exploration, a sense of positive affiliation to one's ethnic group and the expression of ethnic practices indigenous to one's ethnic origins. The second component is based on the development concept of an achieved identity (based on the work of Marcia, 1980). Phinney (1990) delineates the importance of social identity by referring to Lewin (1948) who asserted that individuals need a firm sense of group identification in order to maintain a sense of well-being. Phinney (1990) posits that the social identity theory states that being a member of a group provides individuals with a sense of belonging that contributes to a positive self-concept. However, Syed, Azmitia and Phinney (2007) highlight that individuals have options in how they identify with their ethnic group and it is at their disposal how they construct their own sense of self as a group member just as they construct a personal identity.

2.1.2 Development of Ethnic Identity

Ethnic identity is said to develop over time beginning in childhood (Ruble, Alvarez, Bachman, Cameron, Fuligni & Garcia, 2004). The period in which exploration of ethnicity begins, has been found to occur primarily during adolescence and emerging adulthood. Phinney (2006) in Syed, Azmitia and Phinney (2007) noted that it is during this period that individuals come across ethnically charged situations and endeavour to make sense of the meaning of their ethnicity within the larger setting. Furthermore, Quintana, Castaneda-English and Ybarra (1999) observed that commitment which is a component of ethnic identity reflects the quality of one's sense of group belonging and becomes stronger over time as individuals develop a clearer understanding of ethnicity. The pattern of the emergence and development of ethnic identity has been investigated by ethnic identity researchers. They offer the idea that identity is a dynamic, multidimensional process rather than a static state of being (Phinney, 1989). Even though ethnic identity researchers concur on this proposal, Syed et al. (2007) point out that understanding ethnic identity as a process that evolves over time or a state of being, is not clear in older populations such as emerging adults. Arnett (2000)

contended in his proposition of the theory of emerging adulthood, that what is considered the 'normative' period of settling into adulthood has seen a significant shift in industrialised nations. He went on to say that the period of emerging adulthood is in between the adolescence and young adulthood stages and as thus it involves a continued exploration of identity. In view of this, Phinney (2006) also attested that this is the case for ethnic identity, more particularly for those who change their surrounding context such as attending college.

Ethier and Deaux (1994) expounded on these possible changes in the context such as going to college and proposed that this may stimulate a re-examination of race and ethnicity. This was attributed to the new situations and experiences that college life presented even if an achieved ethnic identity had previously been reached. There is research that suggests that the transition to college provides an important context for re-examining ethnic identity (Chavous, Rivas, Green & Helaire, 2002, Ethier & Deux, 1994). Moreover, because of this potential re-examination as consistent with Erickson's (1968) proposal that identity development is a lifelong process, it would be important to understand ethnic identity in emerging adulthood and beyond.

Upon consideration of different factors, longitudinal studies conducted on ethnic identity in adolescence such as French, Seidman, Allen and Aber (2006) and Pahl and Way (2006) suggest an increase in ethnic identity exploration from early to mid adolescence. They describe that at this point exploration reaches a peak and then begins to decrease into late adolescence.

2.1.3 Factors influencing Ethnic Identity

The construct of ethnic identity has been extensively explored in America. Phinney and Tarver (1988) specifically examined the processes of search and commitment in ethnic identity among black and white, middle class eight graders. There was evidence indicating that ethnic identity begins to form as early as the eighth grade. The authors established that the factors that foster a sense of ethnic identity are those that contribute towards being socialising agents. Spencer (1983, 1985) in Phinney and Tarver (1988) emphasises that achieving group identity is challenging without the consistent guidance of socializing agents. Spencer and Markstrom (1990) present the argument that African American parents,

relatives, and teachers must actively and continually struggle to present evidence to children that attests to the worth of black culture as a way of offsetting cultural identity confusion. Theorists also suggest that family and peer contexts may play significant roles in shaping ethnic identity development. For example, Phinney (1992) proposes that individuals go into the stage of adolescence with some knowledge of their ethnic identity that has been shaped by family influences and engagement in the wider ethnic community. Ontai-Grzebik and Raffaelli (2004) examined these influences among Latinos in America and found that this influence may come in indirect forms such as the implicit teaching of the concepts of 'familia' (deep connection and loyalty to extended family) and 'respeto' (respect to elders). Thus they suggest that by late teens and early twenties, prior family influences may have an indirect effect on ethnic identity and such factors as living in diversified communities have a more direct impact.

The next section looks at the phenomenon of posttraumatic growth and the various factors that have been taken into account in its conceptualisation.

2.2 Posttraumatic Growth

The question of what determines the tendency of one person to take a perspective that emphasizes the loss, whereas another perceives gain, has attracted the attention of many researchers investigating posttraumatic growth (Calhoun & Tedeschi, 2004). Several authors have acknowledged the existence of the phenomenon of posttraumatic growth. Frankl (1984) terms it as 'tragic optimism' whereby he defines it as a human potential to turn suffering into achievement and accomplishment. And it is equally pointed out by Ho, Chan and Ho (2004) that if the reorganisation that takes place is adaptive, it would resemble thriving after trauma.

There are several determinants of posttraumatic growth. Schaefer and Moos, (1992) (as cited in Ho, Chan & Ho, 2004) posit that factors affecting thriving and positive transformation are likely to be multidimensional. Such factors include personal characteristics (e.g. gender, temperament, personality traits), characteristics of the environment (e.g. social support, living conditions), characteristics of the negative event (e.g. stressfulness, duration, controllability) and coping responses (e.g. problem-focused coping, emotion-focused coping). Recent findings in the literature suggests that posttraumatic growth is positively linked to optimism

and hope, high religiousness, strong social resources, and positive reinterpretation coping (Schaefer & Moos, 1992 as cited in Ho, et al., 2004).

Posttraumatic growth has been linked with different types of trauma. Psycho-oncology is concerned with the psychological, social, behavioural, and ethical aspects of cancer and therefore research linked with posttraumatic growth in people who have suffered from cancer has been carried out. Ho, Chan and Ho (2004) specifically investigated posttraumatic growth in Chinese cancer patients. Within this field there is a model called the Social Cognitive Transition (SCT) model of adjustment to cancer which postulates that the socio-cultural environment is an important determinant of the nature and dimensions of positive changes (Brennan, 2001).

Ho, Chan and Ho (2004) discuss the role that independent-interdependent systems have in the development of posttraumatic growth. They posit that independent – interdependent personal construal systems affect many aspects of individual experiences, including cognition, emotion, and motivation, the authors thus suggest that these factors should also be relevant to the phenomenon of posttraumatic growth. In a study investigating posttraumatic growth in Chinese cancer survivors, Ho, et al. (2004) could not identify a distinct dimension of emotional change (e.g. people feeling more relaxed, being more aware of their own feelings, having greater compassion for other people's pain) among Chinese cancer patients. They suggested that this was due to the tendency in Chinese culture to focus less on emotional experiences or on the integrated mind-body relationship as suggested by Cheung (1985) (as cited in Ho et al.) and suggest that the emotional dimension may be more culturally bound.

Previous findings suggest that the factor structure of the Posttraumatic Growth Inventory may differ somewhat from one country or cultural group to another, but that the factor structures from these different groups do appear to be compatible with three main domains of post traumatic growth (Tedeschi & Calhoun, 1996), changes in self, in relationships, and in philosophy of life.

Calhoun & Tedeschi (2004) state that, "The themes… are prevalent in distal cultural forms, and the ways in which they do or do not influence the individual's own experience of growth remain a largely unexamined area" (p. 12). It remains to be seen, then, whether the difference in factor structure is due to the socio-cultural differences or other sample differences such as education, stage of life, or even type. Consequently as suggested by Sheikh and Marotta (2005), in order to examine the cultural impact on the factor structure of the PTGI with a non-

American sample, it is important to collect data from participants similar to those in the original development of the inventory (Tedeschi & Calhoun, 1996) and to consider the factor structure from a cultural as well as a theoretical perspective.

2.2.1 Posttraumatic Growth and Coping

Schaefer and Moos (1992) as cited in Ho, Chan and Ho (2004) propose that there are several determinants of posttraumatic growth. Thus, posttraumatic growth research has implicated the contribution of personal characteristics in the occurrence of this phenomenon. An individual's perception of the stressful life event can have a bearing on how one experiences posttraumatic growth. This perception may possibly be influenced by their individual coping response to the traumatic event. The coping resources available to people could possibly serve as a mechanism to handle the emotions or thoughts about the traumatic event. This could possibly lead to a reduction in distress and an improved quality of life. The different coping responses that people could use are coping through acceptance of the traumatic event, emotional expression, positive reappraisal coping and avoidance coping. It would be important to examine whether the coping strategies follow a certain pattern in individuals and how these interact with posttraumatic growth. There is a possibility that the role of ethnocultural identity on posttraumatic growth might be attributable to perhaps, coping patterns in individuals.

2.2.2 Posttraumatic Growth and Culture

In reference to the posttraumatic growth model developed by Calhoun and Tedeschi (2004) it has been suggested by the same authors that the individual's closely allied social network plays an important role in the understanding of posttraumatic growth. These same researchers emphasise that even though this is important as pointed out by McMillen (2004), the process of posttraumatic growth and the responses of the individual's proximate social groups are realised within the context of even wider and more distal societal and cultural frameworks (Tedeschi,1999 as cited in Calhoun & Tedeschi, 2004). In further support of this view Pals and McAdams (2004) state that individuals in the United States have an experience of posttraumatic growth occurring within the framework of characteristically "American" narratives. Thus more distal, societal narratives or elements of "American" identity can be

identified (Pals &McAdams, 2004). Pals and McAdams (2004) then proposed that investigators of posttraumatic growth evaluate the extent to which elements of growth expressed by “American” individuals appear to be influenced by the larger narrative accounts and construction of the larger society.

Pals and McAdams (2004) investigated the narratives underlying the understanding of posttraumatic growth. They posited that contextual factors described by Tedeschi and Calhoun (2004) may be understood as influencing the narrative construction of the traumatic event. More specifically Pals resolved that factors such as talking with others, praying, and writing about events are all acts that involve putting trauma in words and may therefore serve to facilitate narrative processing and move it in the direction of positive self-transformation. It is apparent that even in the understanding of posttraumatic growth as narrated within the life story, it needs to be critically analysed to consider the role of culture (Pals & McAdams, 2004). However, this is not to suggest that posttraumatic growth is distinct to cultural modernity. Rather Pals and McAdams (2004) say there is reason to believe that the characteristic growth patterns that can occur in a life, and the ways they are narrated are strongly driven by cultural narratives, which themselves are derived from economic, political, religious, and historical factors that vary widely from one society to the next. Overall Pals and McAdams (2004) import that in order to gain a full understanding of posttraumatic growth requires a serious consideration of the role of culture.

2.2.3 Posttraumatic Stress Disorder in South Africa

The symptoms of PTSD include different forms of re-experiencing the trauma (for example, through nightmares, sensory flashbacks or involuntary images), behavioural attempts to avoid traumatic reminders, amnesia for some aspects of the trauma, emotional numbing, and symptoms of hyperarousal (such as an exaggerated startle response and constant hypervigilance of danger) all of which must be present for at least one month and cause significant distress or impairment in functioning (American Psychiatric Association, 2000).

Posttraumatic stress disorder has been said to vary across people depending on their vulnerabilities. Nayback (2008) argues that just as not everyone is equally likely to develop heart disease or cancer, not everyone exposed to trauma is equally likely to develop PTSD. Different types of trauma types lead to unique variants of the posttraumatic stress disorder

symptoms. Kelley, Weathers, McDevitt - Murphy, Eakin and Flood (2009) discuss the different trauma types that are associated with different levels of overall PTSD symptom severity. They suggest that certain event types, such as sexual assault, are associated not only with greater conditional risk for PTSD, but also with higher levels of overall PTSD symptom severity.

The relevance of posttraumatic stress disorder research in South Africa is an argument that cannot be disputed. Most research on posttraumatic stress in South Africa has largely focused on political violence in the wake of the activities of the Truth and Reconciliation Commission (Hamber & Lewis, 1999 as cited in Kaminer, Grimsrud, Myer, Stein & Williams, 2008). In review of the current violence in South Africa, Vogelman and Simpson (1990) showed that the pervasive culture of violence means a society that endorses and accepts violence as an acceptable and legitimate means to resolve problems and achieve goals. Kaminer, et al. (2008) have acknowledged the documentation of what can be termed as a 'culture of violence in South Africa. Interpersonal violence is one of the instances in which women particularly are affected. This has been evidenced by Kaminer, et al. in which they reported that whether describing shootings, murders, taxi rapes, rapes, gang presence, stabbings, homelessness or prostitution a majority of the women in their study reported "some' or "a lot" of these occurrences in their neighbourhoods. It appeared that half of the victimised women met all diagnostic criteria for PTSD (Kaminer, et al.). Studies have been undertaken to explore the extent of the impact of violence on the South African population. Hirschowitz and Orkin (1997) investigated the far reaching effects of this violence on the well being of South Africans and found that a large number of people across all race groups have experienced and been affected by extreme forms of violence. Hirschowitz and Orkin (1997) estimated that five million adults (23% of the population aged 16 to 24 years) had been exposed to one or more of the following events; political violence, fighting in a war, living through a life-threatening incident, being attacked or witnessing an attack, being raped, participating in violence, being tortured, witnessed one's home being burnt or being evicted from one's home (Hirschowitz & Orkin, 1997).

Janoff-Bulman (1992) neatly put into perspective the type of psychological crises that individuals can find themselves subject to. He defines it as the extent to which the fundamental components of the assumptive world are challenged, including assumptions about the benevolence, predictability, and controllability of the world; one's safety is challenged, and one's identity and future are challenged. In this definition reference is made

to the impact on an individual's identity and thus implicates the factors influencing his identity which might include cultural identifications.

2.3 Ethnic Identity in South Africa

There are the general politics of ethnic identity and ethnicity in South Africa. Bekker (1993) in Adam (1995) describes the use of the word ethnicity in contemporary social science as the greatest enigma of our time. Adam (1995) explains how this term or phenomenon has been tainted by the shadow of apartheid. He very explicitly lays out how distinct ethnicity is from other historically construed social characteristics mainly due to its manipulatability. From his point of view, ethnic identity fluctuates in response to group members' own perceived needs whether instrumental or even symbolic but also possibly as a result of imposed identity by out-group members. Adam (1995) points out the fluidity of ethnicity and proposes that there is no general theory of an essentialist ethnicity that can be taken into account because this phenomenon is constantly changing with social conditions.

Given South Africa's socio-political background, the role of ethnic identity in the psychological well-being of South Africans is of importance in the face of negative life situations such as traumatic incidents. Taking into consideration the shifting racial, social, ethnic identities in South Africa one cannot deny the indispensable role they play in people's lives. These concepts guide the people of South Africa, the core beliefs and mechanisms that are inherent in these identities are what people use in the face of hardships and traumatic events. Ethnicity is a quite a loaded word in South Africa. Dubow (1994) acknowledges that the most obvious reason for this is the reality that ethnicity has been used in South Africa initially as a tool of colonisation and most decidedly by the apartheid state as a means of securing political division and exploitation. Phinney (1990) and Spencer and Markstrom-Adams (1990) emphasise that positive ethnic identity is essential to psychological well being, psychosocial competence, and successful adaptation in American society. This present study also proposes the potential importance of ethnic identity in fostering posttraumatic growth and improving overall psychological well-being. This present study is one of the few studies taking into consideration ethnocultural factors on posttraumatic growth in the South African population.

2.4 Posttraumatic Stress Disorder and Posttraumatic Growth

One of the aims of the current research is to determine the relation between the two main variables of this study, namely posttraumatic stress disorder and posttraumatic growth. There is some evidence by Lechner, Antoni and Carver (2006) suggesting that the relationship between growth and distress may not be linear as most previous studies indicate but rather that it follows a curvilinear pattern. This can be further described by drawing hypotheses about different groups of people that have experienced some kind of trauma. Kleim and Ehlers (2009) allude to the possible occurrence that some trauma survivors may fail to perceive an event to begin with as a crisis and would as a result have little reason for either distress or growth. A second group they mentioned may experience mostly distress and less growth, and a third group is probable to mostly experience growth and less distress. Kleim and Ehlers (2009) ascribe the curvilinear relationship between growth and distress due to the combination of the aforementioned three groups. Taking into account the relationship that may exist between posttraumatic stress disorder and posttraumatic growth it would also be noteworthy to review literature concerning the possible cultural factors that may have an influence on posttraumatic stress disorder as the following section outlines.

2.4.1 Posttraumatic Stress Disorder and Culture

There are some suppositions that have been made by some researchers regarding the contribution of culture towards the development of posttraumatic stress disorder and the consequent experience of it. Nayback (2008) attests to the fact that PTSD may be largely a cultural artefact. In another study of trauma survivors in Africa by Yeomans, Herbert and Forman (2008) it was pointed out that prior exposure to Western ideas of trauma was strongly associated with the presence of PTSD symptoms. Military veterans were also studied in a National Vietnam Veterans Readjustment Study whereby it was suggested that Hispanic and Asian Americans have a greater predisposition toward developing PTSD (Veteran Health Administration, Department of Defence, 2000 as cited in Nayback, 2008). This leaves room to implicate sociocultural factors that influence the development of posttraumatic stress disorder. In their investigation of cultural differences in personal identity in issues relating to posttraumatic stress disorder, Jobson and Kearney (2008) hypothesized that those from independent cultures with PTSD will have significantly more trauma-themed goals, self-defining memories and self cognition than those from independent cultures without the

presence of PTSD. There was also an emphasis on the need for awareness of cultural factors which moderate any impact of trauma.

In conclusion the literature review looks at different issues that arise in the understanding of posttraumatic growth and posttraumatic stress symptoms which are characteristic of posttraumatic stress disorder. Cultural factors are suggested to contribute to a certain extent to the current research's variables of interest. Ethnocultural identity seems to fit into the cultural role of posttraumatic growth and posttraumatic stress symptoms. This present study will thus investigate effects of ethnocultural identity on posttraumatic growth and posttraumatic stress symptoms.

2.5 Significance of the study

The investigation of stress-related growth as it is sometimes called is still a relatively new development. This research proposes the investigation of posttraumatic growth in different ethnocultural groups in South Africa.

McMahon and Watts (2002) suggest that ethnic identity as a field of study has been found to be linked positively with a number of health-related outcome outcomes among youth and adults. Even though this is the case they mention that this field of inquiry appears to be in its infancy and many theories of psychological development have failed to incorporate ethnic identity in an explicit manner. They go on to confer that most studies investigating adjustment do not include an assessment of ethnic identity and as a consequence most interventions do not include ways of promoting and facilitating ethnic identity. Studies have been conducted to examine the effect of ethnic identity on overall psychological wellbeing and ethnic identity has been found to be positively associated with a variety of health-related outcomes among youth and adults (McMahon & Watts, 2002). Although, this is the case it cannot be assumed that ethnic identity will have the same effect on posttraumatic growth. Calhoun and Tedeschi (2004) put forth an argument in support of this stating that posttraumatic growth is not the same as an increase in well-being or a decrease in distress. Although this is the case this research will attempt to explore the potential role of ethnocultural identity.

It appears justifiable to assume that the psychological processes involved in the individuals' adaptation to life trauma, and in the process of posttraumatic growth are influenced by

sociocultural factors (Calhoun & Tedeschi, 2004).Very little research has been conducted in non-American samples with regards to posttraumatic growth and therefore there is a need for this kind of research to be done in South Africa. There is also emerging evidence that non-American samples report posttraumatic growth (Calhoun & Tedeschi, 2004). Examples are, research conducted in Bosnia (Powell, Rosner, Butollo, Tedeschi & Calhoun, 2003), China (Ho, Chan & Ho, 2004) and Japan (Taku, et al. 2007).

Researchers seem to have identified an area of investigation of how cultural theories and cultural differences might influence the experience of growth following stressful experiences. This is supported by Meyerowitz, Richardson, Hudson, and Leedham (1998) who describe how different cultural and subcultural theories about stressful events and suffering might specifically influence people's responses to illness. McFarland and Alvaro (2000) further reinforce this point by stating that, cultural theories might influence the amount of growth that individuals expect and experience and mention that it is a hypothesis that awaits future research. Updegraff and Marshall (2005) propose that future research on posttraumatic growth should look at different sample characteristics such as persons with a broader range of ethnicities and cultural factors. Some researchers have also speculated that the particular kind of growth perceptions can be shaped by one's ethnic and cultural context (Abraido-Lanza, Guier & Colon, 1998).

This current study aims to discover the underlying relationships that might exist between posttraumatic growth and background characteristics of a population. This variation in growth was proposed in a study of African Americans, Puerto Rican, and non-Hispanic White women (Siegel & Schrimshaw, 2000). Siegel and Schrimshaw noted that nearly all the women reported growth but some variation was found in the forms reported in relation to the women's ethnic/racial background and class (socioeconomic status).

It is also evident that South Africans appear touched in many ways by violent, criminal, or otherwise potentially traumatic experiences (Williams, et al. 2007). It is assumed that the high rates of violence could be attributable in part to the historical context of South Africa, characterised by political violence (Williams, et al. 2007). Therefore the study of trauma and its impact on the South African population is of indispensable value to the needs of people in such a population. At this point in time it would be important to mention that trauma is a subjective experience and this is how it has been operationalised in this study.

This present study aims to establish whether there are any significant differences in an ethnically diverse population such as South Africa in relation to posttraumatic growth. The results of this study could lead to further descriptive research as Blankenship (1998) highlighted, that there is still a pressing need for this kind of research in diverse populations to ensure that the phenomenon of posttraumatic growth is not culture bound and to examine how it may vary in different social contexts. This study could also lead to the facilitation of steps toward an empirically based approach to adapting and enhancing PTSD (posttraumatic stress disorder) treatment for under researched populations in South Africa as proposed by Ford (2008).

2.6 Aims

The main purpose for conducting the study is to establish if there are any differences in ethnocultural identity in reference to the occurrence of posttraumatic growth and posttraumatic stress disorder in the South African context. The other objective is to investigate the interaction of the experience of posttraumatic growth in relation to posttraumatic stress disorder. It would also be important to gain an understanding of ethno-cultural considerations that need to be taken into account by researchers when investigating posttraumatic growth and the resulting implications for clinicians.

2.7 Hypotheses

H1: Ethnocultural identity will be associated with both posttraumatic growth (PTG) and posttraumatic stress symptoms (PTSS).

H2: Ethnicity will be associated with both PTG and PTSS.

H3: Ethnicity will moderate the relation between ethnocultural identity and PTSS.

H3: Ethnicity will moderate the relation between ethnocultural identity and PTG.

3. METHODOLOGY

3.1 Research Design

The current research was conducted using a quantitative survey research method and a cross-sectional design. The quantitative method of study was suitable in this present study because the aim of the study was to establish whether or not identifying with and adopting ethnoculturally informed customs fosters the development of posttraumatic growth and posttraumatic stress symptoms. The present study did not simply seek to explore ethnic differences in posttraumatic growth patterns, but rather sought to explore whether the actual process of identifying with an ethnic culture offers latent mechanisms that potentially facilitate growth in the aftermath of a trauma. By using the quantitative method of study one would be able to determine whether there are any significant differences in the phenomenon of posttraumatic growth and posttraumatic stress symptoms in relation to ethnocultural identity. The quantitative method in research provides a basis for ascertaining relationships for more explorative work (Clark-Carter, 2009). In this kind of research one simply needs sufficient power and statistically significant results (Clark-Carter, 2009) to establish if there are variations in the experience of posttraumatic growth in relation to ethnocultural identity before results can be expanded upon. The dependent variables in the present study were posttraumatic growth (PTG) and posttraumatic stress symptoms (PTSS) as measured by the PTGI and IES-R respectively. The independent variable under study was ethnocultural identity.

3.2 Participants

A convenient sample of students from the University of Witwatersrand was used for the study which was comprised of an ethnically diverse population. The sample was comprised of 1st to 3rd year students from the Faculty of Commerce, Law and Management and the Faculty of Humanities in the age range of 18 years to 26 years (*M=20.5, SD=1.6*). The original sample consisted of 84 participants. However, four participants did not meet the trauma exposure inclusion criterion. The inclusion criteria for this research specified that participants should have experienced a trauma between two months to two years ago. As such, these four were eliminated and the final sample consisted of a total of 80 participants.

3.3 Procedures

Human subjects' approval had to be obtained through the University of Witwatersrand Ethics Committee. The researcher had to first obtain an ethics clearance certificate from the internal and external ethics committees of the University of Witwatersrand. Permission was then sought from the Dean of Humanities and the Dean of Commerce, Law and Management. Following approval, appropriate lecturers were then approached for permission to invite their students to participate in this research. Students were invited to participate during the break period of their normal lecture times. Those who were interested in taking part in the research were given participant information sheets, informed consent forms and questionnaires by the researcher with the help of a research assistant. Each participant was given a demographic questionnaire, an ethnic identification measure, the Impact of Events Scale (Revised), the Traumatic Stress Schedule and the Posttraumatic Growth Inventory. The questionnaires were self-report measures and were in English and took 20 to 30 minutes to complete. Inclusive in the participant information sheet was information on free counselling resources in case of distress related to their participation. After the students completed the questionnaires they were asked to put them in a sealed box provided by the researcher placed on a table at the classroom exits. None of the participants were required to disclose their names on any of the questionnaires and thus anonymity was ensured.

3.4 Measures

3.4.1 Impact of Event Scale - Revised (IES-R)

The Impact of Event Scale – Revised (Weiss & Marmar, 1997) (Appendix G) is a 22 item self report measure that assesses subjective distress caused by a traumatic event. It is a revised version of the older version (IES; Horowitz, Wilner & Alvarez, 1979) the 15 item IES. Respondents are asked to identify a specific stressful life event and then indicate how much they are distressed or bothered by each "difficulty" listed. Items are rated on a 5-point Likert scale ranging from 0 (" not at all") to 4 ("extremely"). The validity has also been found to be sufficient (Weiss & Marmar, 1997). The split half reliability of the total scale was high (r = 0.86). Results also indicated a reliability of 0.94 for the intrusion subscale, and 0.89 for the avoidance subscale (Weiss & Marmar, 1997). This measure has been used in the South African context (e.g. Ward, Lombard & Gwebushe, 2006).

3.4.2 Traumatic Stress Schedule (TSS)

The Traumatic Stress Schedule (Norris, 1990) (Appendix, F) interview measures essential information about potentially traumatic events and it is used to control for the total number of traumatic events that participants were confronted with. The TSS allows for assessment of ten events such as combat, robbery or motor vehicle accident as well as one unspecified event. For each of the events, nine detailed closed ended questions and one open-ended that examine dimensions of loss, scope, threat and physical injury, blame and familiarity are asked (Norris, 1990). It also prompts for an assessment of an event that changed an important aspect of life such as residence, job or personal relations. This measurement has been found to have good reliability and validity (Norris & Hamblen, 1997).This measurement can be used for clinical and research purposes. This interview schedule has been used in South Africa (e.g. Ortlepp & Friedman, 2002).

3.4.3 Posttraumatic Growth Inventory (PTGI)

The Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996) (Appendix H) is an instrument for assessing positive outcomes reported by persons who have experienced traumatic events. This is a 21-item scale which yields five subfactors including Openess to New Possibilities, Relating to Others, Personal Strength, Spiritual Change, and Appreciation of Life. The internal consistency of the resulting 21-item PTGI was acceptable at 0.90 (Tedeschi & Calhoun, 1996). The test – retest reliability for the 21-item PTGI was acceptable at 0.71 (Tedeschi & Calhoun, 1996). Furthermore, the construct, convergent, and discriminant validity has been found to be acceptable (Tedeschi & Calhoun, 1996).This measure has been used in the South African context (e.g. Polatinsky & Esprey, 2000).

3.4.4 Multigroup Ethnic Identity Measure (MEIM)

Ethnocultural identity was assessed using the 15-item Multigroup Ethnic Identity Measure (Phinney, 1992) (Appendix I) with two additional questions. The measure has a reported reliability of .81 with high school students and .90 with college students (Phinney, 1992). It has been found to have moderate degrees of construct and criterion-related validity

(Ponterotto, et al. 2003). It was designed to assess three components of ethnic identity: affirmation and belonging (five items); ethnic identity achievement (seven items, including two negatively worded, four for ethnic identity exploration and three for commitment); and ethnic behaviours (two items). Items were rated on a four-point scale ranging from 1 = *strongly disagree* through 4 = *strongly agree*, so that high scores indicate strong ethnic identity. The MEIM also includes a six-item scale to assess orientation toward other ethnic groups; this was not part of the ethnic identity scale and was not included in the present study. This original scale was modified to fit the South African context in terms of the ethnic groups that were listed because this measure is originally an American measure. Permission for modification was obtained from the author of the Multigroup Ethnic Identity Measure. One additional question was included that is not part of the Phinney's original (1992) MEIM. This question stated, 'I follow the customs and traditions of my…'with four options available (see Appendix I). This measure has been used in the South African population (e.g. Bornman, 1999).

3.5 Data Analysis

The data analysis was carried out using the quantitative research procedures. This was ideal for this research because it is a measurement that allows for differences to be delineated between people in terms of the characteristic in question (Bryman, 2004). This type of analysis provides more precise estimates of the degree of relationship between concepts, than if another method of analysis was used (Bryman, 2004). There were two dependent variables in this study, namely posttraumatic growth and posttraumatic stress symptoms as measured by the PTGI and IES – R respectively. There was one independent variable which is ethnocultural identity. The hypothesis stated that ethnocultural identity has a role on posttraumatic growth and posttraumatic stress symptoms. The ANOVA procedure was used to analyse the results to help the researcher identify whether changes in ethnocultural identity (independent variable) have significant effects on posttraumatic growth and posttraumatic stress symptoms (dependent variable). MANOVA was also conducted as the main analysis. MANOVA is an analysis whereby there is more than one dependent variable (DV) involved (Clark-Carter, 2009). Secondly, we can see how different variables behave in combination, instead of looking at them in isolation (Clark-Carter, 2009). The Statistical Analysis Software (SAS) was used to perform all the statistical tests.

3.6 Ethical Considerations

Research involving human participants requires that certain ethical guidelines be adhered to. There might have been some questions that may have been of a sensitive nature to the participants but it was necessary that the researcher ensured that no harm was inflicted on the research participants. This specific research focused on people's experiences of posttraumatic growth and posttraumatic stress symptoms. Therefore, because trauma is a sensitive area it may have exposed the participants to potential risks or harm. It was not anticipated that students approached would be severely traumatised as they were able to continue with their day to day lives. If the participants did experience some distress when answering the questions the research supervisor was to be available for counselling in her office during administration of the questionnaires and the participants could also contact the numbers for free counselling on the participant information letter to make an appointment for counselling.

Permission had to be requested from the University of Witwatersrand authorities. Since the participants were students, the Registrar of the University of Witwatersrand (see Appendix B), the Dean of the Faculty of Commerce, Law and Management (see Appendix C) and the Dean of the Faculty of Humanities (Appendix D) were sent letters via email stating the request of permission to conduct research using students in the two faculties. Permission was then granted by the registrar and the deans of the two different faculties then various lecturers were approached and permission was requested verbally (in person/telephone) or via email to approach students in their lectures. Times were arranged with lecturers when the students could be invited to participate in the study. Those interested to take part in the research were given a participation information sheet (see Appendix A) including details of the purpose of the study, the researcher's contact details, voluntary participation in the research and the statement that they were at liberty to withdraw from the study at any point if they wished to do so. Participation was taken as consent. They were required to complete five questionnaires. The demographic questionnaire (see Appendix E), Impact of Events Scale-Revised (Appendix G), Multigroup Ethnic Identity Measure (Appendix I), Posttraumatic Growth Inventory (Appendix H) and the Traumatic Stress Schedule (Appendix F).

With regards to the findings of the study it was communicated that a one page summary would be made available to the participants, through contact by the researcher by email or by checking on the general notice board in the psychology department after April 2011. Results

will be published and a copy will be available at the library and the raw data will be destroyed once the masters' qualification is obtained.

4. RESULTS

The present study sought to investigate whether ethnocultural identity will be associated with both posttraumatic growth (PTG) and posttraumatic stress symptoms (PTSS). The second aimed to assess whether ethnicity will be associated with both PTG and PTSS. These two aims were assessed by using the MANOVA. Lastly this study investigated whether ethnicity will moderate the relation between ethnocultural identity and both PTG and PTSS by using ANOVA.

4.1 Preliminary Analyses

4.1.1 Sample

A total of 87 undergraduate and postgraduate (honours) students enrolled in psychology classes and in the school of economics and business sciences were recruited at the University of Witwatersrand in Johannesburg, South Africa. Of the 87 questionnaires collected, three of them were not used due to incomplete questionnaires and a further four were excluded in the final data analysis because there was no indication of having experienced a traumatic incident, as measured by the TSS. The decision for exclusion was reached due to the fact that validity of completed responses on both the IES-R and the PTGI were questionable in people who did not report any trauma exposure. The current sample comprised of 80 students (15 males, 65 females) who indicated at least one trauma exposure on the TSS. The final sample of 80 students had a mean age of 20.5 years (*SD* = 1.6) and a range of 18-26 years of age (as seen in Table 1).

Scores for the total scale and the five subscales of the PTGI as seen in Table 1 below were: Total PTGI (*M* = 59.86, *SD* = 23.35, *range* = 4 - 102), New possibilities (*M* = 12.82, *SD* = 7.06, *range* = 0 - 25), Appreciation of Life (*M* = 10.19, *SD* = 3.29, *range* = 1 - 15), Strength (*M* = 12.69, *SD* = 4.82, *range* = 0-20), Spiritual Change (*M*= 5.33, *SD* = 3.9, *range* = 0-10) and Relating to Others (*M* = 18.83, *SD* = 8.97, *range* = 0-35).

Table 1. ***Descriptive statistics for dependent and independent study variables***

Variable	n	SD	M	Minimum	Maximum
1. IES	80	17.23	46.61	8	82
2. Age	80	1.64	20.64	18	26
3. PTGI	80	23.35	59.86	4	102
New Possibilities	80	7.06	12.82	0	25
Appreciation of Life	80	3.29	10.19	1	15
Personal Strength	80	4.82	12.69	0	20
Spiritual Change	80	3.90	5.33	0	10
Relating to others	80	8.97	18.83	0	35
4. MEIM	80	0.60	2.92	1	4
Ethnic Identity Search	80	3.34	13.14	5	200
Affiliation	80	4.47	21.88	8	28

4.1.2 Descriptive Statistics of the Main Variables

For the MEIM (measuring ethnocultural identity) participants were asked to answer a question pertaining to their ethnicity. In order to shed light on a wider variety of the respondents' ethnicity a total of 41 subcategories emerged. Their different ethnicities were categorised as follows based on current South African ways of classifying ethnic groups.1-White South African, 2-Black South African , 3- Black African from other country, 4-Coloured, 5- Indian. See Table 2 below for frequencies. The final sample consisted of 33 White South African participants (41.3%), 24 Black South African participants (30%), nine Black Africans from other countries (11.3%), seven participants who identified themselves as Coloured, (8.8%), and seven participants who identified themselves as Indian (8.8%).

Table 2. ***Frequency table for ethnicity (MEIM 13)***

MEIM 13	Frequency	Percent	Cumulative Frequency	Cumulative %
1	33	41.25	33	41.25
2	24	30.00	57	71.25
3	9	11.25	66	82.50
4	7	8.75	73	91.25
5	7	8.75	80	100.00

Note. * 1=White South African; 2=Black South African; 3=Black African from other country

4=Coloured; 5=Indian

4.1.3 Correlational Analysis

Pearson's correlation coefficient was used to determine the relationship between the main variables including the subscales for the MEIM and the PTGI. Table 3 below shows the strengths of the correlations between different variables.

There was a significant positive correlation between posttraumatic stress symptoms (IES) and posttraumatic growth (PTGI), suggesting that the more posttraumatic stress symptoms participants reported the more likely they were to report experiencing posttraumatic growth, $r = 0.37$, $p < .001$. The negative correlation between age (AGE) and the experience of posttraumatic growth suggested that, in this sample, the older participants were, the less likely they were to report experiencing posttraumatic growth, $r = - 0.45$, $p < .0001$.

As expected, all five sub-factors of the PTGI were significantly positively correlated with the overall PTGI score, with correlation coefficients ranging from 0.70 to 0.9. In addition, Cronbach's alpha ranged from 0.83 to 0.91, this points to the internal consistency of the PTGI measure in this sample. In addition there was a positive correlation between reporting openness to new possibilities and experiencing more posttraumatic stress symptoms, $r = 0.35$, $p<.001$. While it is not possible to determine the direction of this relation, it suggests that participants who reported growth in the area of being open to new possibilities, experienced more severe post traumatic stress symptomatology. On the other hand there was a significant negative correlation between openness to new possibilities and the age of the participants,

meaning that younger participants reported the most growth in the area of openness to new possibilities than did their older counterparts, $r = -0.37$, $p<.0001$.

There was a positive correlation between reporting growth in the appreciation of life area and posttraumatic stress symptoms suggesting that participants who were struggling with more intense posttraumatic stress symptoms were more likely to report growth in the area of appreciation of life, $r = 0.32$, $p <.0001$. The negative correlation between appreciation of life and age indicated that older participants were significantly less likely to report growth in the area of appreciation of life than their younger counterparts were, $r = -0.39$, $p <.0001$. A positive correlation was observed between personal strength and posttraumatic stress symptoms indicating that the more personal strength participants reported the more severe posttraumatic stress symptoms they reported, $r = 0.23$, $p< 0.05$. There was a significant negative correlation between personal strength and the age of the participants, suggesting that younger participants reported more growth in the area of personal strength, $r = 0.36$, $p <.0001$.

The positive correlation between spiritual growth and posttraumatic stress symptoms indicated that the more spiritual growth participants reported the more severe posttraumatic stress symptoms they reported, $r = 0.36$, $p < .001$. There was a negative correlation between age and two of the five dimensions of the posttraumatic growth inventory (PTGI) and age signifying that the younger participants reported greater spiritual growth and relating to others, ranging from $r = -0.37$ to -0.40, $p <.0001$. There was a positive significant correlation between ethnic identity search and overall ethnic identity (MEIM), $r = 0.89$, $p< .0001$. As expected, in the affirmation subscale there was a positive correlation between affirmation and overall ethnic identity (MEIM), $r = 0.94$, $p <.0001$. There was also a significant correlation between one's affirmation and ethnic identity search, $r = 0.67$, $p <.0001$.There were no significant correlations between overall ethnic identity (MEIM), and the ethnic identity search and affirmation, commitment and sense of belonging subscales with the other variables of interest with the correlation coefficient ranging from -0.15 to -0.19.

Table 3. ***Pearson Correlation Coefficients Matrix***

Variable	1	2	3	4	5	6	7	8	9	10	11
1.PTGI	**1.0**										
2.IES	** 0.37	**1.0**									
3.AGE	**- 0.45	- 0.19	**1.0**								
4.POSS	** 0.9	**0.35	**-0.37	**1.0**							
5.APPREC	** 0.84	**0.32	**-0.39	**0.78	**1.0**						
6.STRENGTH	** 0.70	* 0.23	**-0.36	**0.60	**0.48	**1.0**					
7.SPIRITUAL	** 0.80	**0.36	**-0.40	**0.67	**0.60	**0.56	**1.0**				
8.RELATING	** 0.86	**0.28	**-0.37	**0.67	**0.69	**0.39	**0.61	**1.0**			
9.MEIM	0.05	0.12	-0.07	0.09	-0.03	0.05	0.006	0.05	**1.0**		
10.ETH SEARCH	- 0.07	0.06	-0.004	-0.06	-0.15	-0.04	-0.05	-0.04	**0.89	**1.0**	
11.AFF	0.14	0.15	-0.11	0.19	0.06	0.11	0.05	0.11	**0.94	**0.67	**1.0**

*** Significant at p <.05**
**** Significant at p <.01**

4.2 Parametric (ANOVA) Assumptions

The assumptions of the ANOVA procedure were tested before the main analyses could be carried out. The following assumptions of ANOVA were tested (Clark-Carter, 2009) and are explained below.

4.2.1 Normality

This assumption postulates that the scores for each of the conditions of interest come from a population which has a normal distribution. In this case the IES (measuring posttraumatic stress symptoms) and MEIM (ethnocultural identity) variables were found to be normally distributed Shapiro Wilks statistic ($p = 0.225$ and $p = 0.357$ respectively see Table 4 below) was not significant suggesting that the variables were normal. The Shapiro Wilks statistic for PTGI was significant ($p = 0.005$ see Table 4 below) showing that the PTGI (measuring posttraumatic growth) variable does not follow a normal distribution. The Shapiro Wilks normality statistic was used to establish non-significance, whether the conditions of interest follow a pattern of a normal distribution. Given that this was a population of trauma-exposed students, PTGI would not be expected to be normally distributed. It was established that the normality assumption was met.

Table 4. ***Test for Normality (Shapiro Wilks test statistic)***

Variable	Test	Statistic	p-value
PTGI	Shapiro Wilks	W = 0.952	p = 0.005
IES	Shapiro Wilks	W = 0.979	p = 0.225
MEIM	Shapiro Wilks	W = 0.983	p = 0.357

*significant at p= < 0.05

4.2.2 Independence

The assumption for independence was met because the scores of one participant have not been affected by the scores of another participant. While convenience sampling was used, participation of one student did not depend on participation of any other students. As such, within that convenience sample, the sample was random and varied in some sample characteristics.

4.2.3 Homogeneity of Variance

Most of the variances were equal and this assumption was met as residuals all clustered around zero.

4.2.4 Level of Measurement (dependent variable)

The dependent variable (posttraumatic growth) is an interval scale of measurement therefore this parametric assumption was met.

Taken together, it was ascertained that there were no major violations of the parametric assumptions of the ANOVA procedure. As such, parametric statistics were run as planned.

4.2.5 Assumptions of MANOVA

a) *Linearity* - it is assumed that linear relationships between all pairs of dependent variables exist. Scatter plot graphs were used to test out this assumptions and it was found that PTGI and IES have a relationship.

b) *Homogeneity of variances* – basically that they are no outliers assumes that the variance between groups is equal

c) *Normality* – this assumption is based on the premise that the sampling distributions of the dependent variables and all linear combinations of them are

normal. The univariate test for normality was used to confirm multivariate normality. The F-test was robust for normality because the sample size was over 50.

4.3 Main Analysis

4.3.1 H1: Ethnocultural identity will be associated with both posttraumatic growth and posttraumatic stress symptoms

In order to test the first hypothesis namely that ethnocultural identity will be associated with PTG and IES, a MANOVA was conducted. The Wilks Lambda is a test statistic that has been used in this study for the multivariate analysis of variance (MANOVA).It is used to establish whether there are differences between the means of identified groups of subjects on a combination of dependent variables (Crichton, 2000).

Findings suggest that there was no overall significant multivariate effect for ethnocultural identity, Wilks Lambda = 0.985, $F_{(2,77)} = 0.57$, p = 0.566. A look at the univariate ANOVA main effects of the interaction between ethnocultural identity and posttraumatic stress symptoms suggested that overall, there was no significant effect $F_{(1,79)} = 1.16$, p = 0.285. Similarly there was no significant overall effect between ethnocultural identity and posttraumatic growth, $F_{(1,79)} = 0.21$, p = 0.649.

4.3.2 H2: Ethnicity will be associated with both posttraumatic growth and posttraumatic stress symptoms

Examination of the second hypothesis stating that ethnicity will be associated with PTG and PTSS suggested there was no overall significant multivariate effect for ethnicity (Wilks Lambda = 0.881, $F_{(8,148)} = 1.21$, p = 0.299. Univariate analysis for the interaction between ethnicity and posttraumatic stress suggested that the overall model was not significant $F_{(4,79)} = 0.69$, p = 0.605. Likewise, the overall model for the interaction between ethnicity and posttraumatic growth was not significant $F_{(4,79)} = 1.90$, p = 0.19.

The two-way MANOVA revealed that the overall multivariate effect for the interaction of ethnocultural identity with ethnicity was not significant (Wilks Lambda = 0.824, $F_{(8,138)} = 1.75$, p = 0.093. An examination of the univariate two-way ANOVAs suggested that the overall effect of the interaction of ethnocultural identity with ethnicity for posttraumatic stress symptoms was significant, $F_{(9,79)} = 2.06$, p = 0.045. The ethnocultural

identityXethnicity interaction effect was also significant $F_{(14,79)} = 3.54$, $p = 0.011$ suggesting that ethnocultural identity and ethnicity have a significant relationship. Furthermore, the univariate main effects for ethnicity and posttraumatic stress symptoms was significant $F_{(4,79)} = 3.67$, $p = 0.009$. The univariate effect for ethnocultural identity was not significant $F_{(1,79)} = 0.00$, $p = 0.962$.

4.4 Additional analyses

4.4.1 Number of traumas as predictor of PTSS and PTG

The multivariate analysis showed that the overall model looking at the number of traumas experienced was significant, (Wilks Lambda = 0.827, $F_{(2,77)} = 8.03$, $p = 0.0007$. The univariate analysis of the number of traumas with posttraumatic growth (PTG) was not significant $F_{(5,79)} = 0.76$, $p = 0.585$. Furthermore, the univariate analysis with posttraumatic stress symptoms (PTSS) revealed that the effect was significant $F_{(5,79)} = 3.63$, $p = 0.0054$. This significant effect suggests that the number of traumas experienced will predict the severity of posttraumatic stress symptoms.

4.4.2 Number of traumas as moderator of the relation between ethnocultural identity and both PTG and PTSS.

The two-way MANOVA analysis showed that the overall multivariate effect for the interaction of ethnocultural identity with the number of traumas was not significant (Wilks Lambda = 0.810, $F_{(8,136)} = 1.89$, $p = 0.067$. An examination of the univariate two-way ANOVAs suggested that the overall interaction with posttraumatic stress symptoms (PTSS) was significant (see Table 5 below), $F_{(10,79)} = 2.52$, $p = 0.012$. The individual main effects suggested that the ethnocultural identityXnumber of traumas interaction effects was not significant $F_{(4,79)}$ 1.45, $p = 0.227$. Similarly ethnocultural identity had no significant effect, $F_{(1,79)} = 1.38$, $p = 0.245$. In addition a significant effect for the number of traumas was found, $F_{(5,79)} = 3.60$, $p = 0.006$, indicating that the number of traumas as aforementioned is predictive of the intensity of posttraumatic stress symptoms.

The univariate ANOVAs for the PTG and the interaction effects suggested that the overall model was not significant, $F_{(10,79)} = 0.94$, $p = 0.505$. There were no significant effects of the ethnocultural identityXnumber of traumas interaction $F_{(4,79)} = 1.28$, $p = 0.288$. Similarly the

individual effect of the number of traumas was not significant $F_{(5,79)} = 0.81$, $p = 0.546$. The ethnocultural identity effect was also not significant $F_{(1,79)} = 0.21$, $p = 0.649$.

Table 5. ***Means of PTSS and PTG according to number of traumas***

Number of traumas1		**2**	**3**	**4**	**5**	**6**
PTSS	36.56	47.47	48.48	60.25	57.50	62.00
PTG	55.28	58.32	65.64	53.25	67.50	72.00

A one way ANOVA was conducted to explore whether or not ethnicity will moderate the relation between ethnocultural identity and both PTG and PTSS.

4.4.3 Ethnicity will moderate the relation between ethnocultural identity and both PTG and PTSS

Several significant interactions were found namely: The overall model was significant, $F_{(9,79)} = 2.06$, $p = 0.045$, the main effects predicting the interaction between ethnocultural identity and ethnicity on posttraumatic stress symptoms was significant, $F_{(4,79)} = 3.45$, $p = 0.011$. This significance suggests that ethnocultural identity and ethnicity interact to determine posttraumatic stress symptoms. The main effects of ethnocultural identity was not significantly predictive of PTSS, $F_{(1,79)} = 1.28$, $p = 0.261$. Similarly the main effects of ethnicity was not significantly predictive of PTSS, $F_{(4,79)} = 0.78$, $p = 0.542$.

There were significant differences in the means of posttraumatic stress symptoms according to ethnocultural identity and ethnicity (see Table 6 and Figure 1 below). The more strongly participants identified with Black South African or Indian ethnicity then the less posttraumatic symptoms they reported. The less they identified with their ethnicities the more posttraumatic stress symptoms they reported. Participants who subscribed to South African White ethnicity or to the Black African from other countries ethnicity showed that if they identified less with their ethnicity they experienced fewer posttraumatic stress symptoms. If they identified strongly with their ethnicity then they showed more posttraumatic stress symptoms.

Table 6. ***Means of PTSS as a function of ethnicity and level of ethnocultural identity***

	White	Black SA	Black (other)	Coloured	Indian
MEIM (Low)	37.00	54.08	37.60	41.00	74.00
MEIM (High)	53.87	48.42	54.75	42.67	42.00

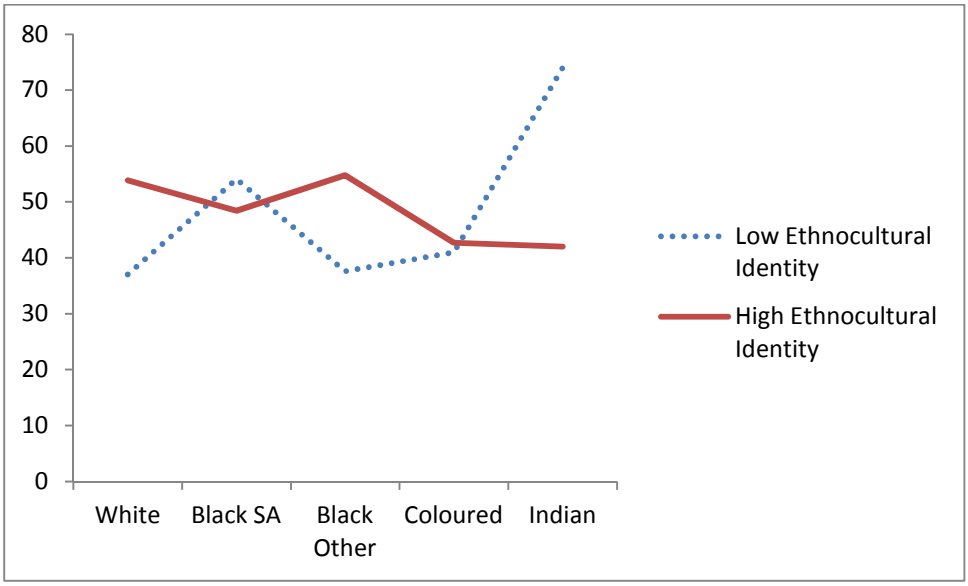


Figure 1. ***Interaction graph between ethnicity and ethnocultural identity on PTSS***

4.4.4 Do posttraumatic stress symptoms predict posttraumatic growth and is it dependent on ethnicity (moderation)?

The overall model was significant, $F_{(9, 79)} = 2.17$, $p = 0.03$ but the interaction between posttraumatic stress symptoms and ethnicity was not significant $F_{(4, 79)} = 0.20$, $p = 0.94$. Examination of the main effects of posttraumatic stress symptoms and ethnicity suggest that the main effect of IES on predicting posttraumatic growth was significant, $F_{(1, 79)} = 12.05$, $p = 0.00$, while the main effect of ethnicity was not significant, $F_{(4,79)} = 1.67$, $p = 0.17$.

4.4.5 Is there an interaction between ethnocultural identity and posttraumatic stress symptoms in predicting posttraumatic growth?

The overall model was significant, $F_{(3, 79)} = 4.45$, $p = 0.01$. The interaction was not significant $F_{(1, 79)} = 1.33$, $p = 0.25$. Only the main effects of posttraumatic stress symptoms predict the outcome of posttraumatic growth, $F_{(1, 79)} = 11.79$, $p = 0.001$. The main effects of ethnocultural identity was not significantly predictive of PTG, $F_{(1,79)} = 0.24$, $p = 0.63$.

4.4.6 Is there an interaction between gender and ethnocultural identity in predicting posttraumatic growth?

The overall model was not significant $F_{(3,79)} = 0.55$, $p = 0.65$. The interaction between gender and ethnocultural identity is not significant $F_{(1, 79)} = 1.41$, $p = 0.24$ neither are the main effects of ethnicity significant, $F_{(1,79)} = 0.19$, $p = 0.66$. Similarly, the main effects for gender are not significant $F_{(1,79)} = 0.06$, $p = 0.81$.

4.4.7 Is there an interaction between gender and ethnocultural identity in predicting posttraumatic stress symptoms?

The overall model was not significant $F(3,79) = 0.90$, $p = 0.45$. In addition, the interaction between gender and ethnocultural identity is not significant $F(1,79) = 0.14$, $p = 0.71$. The main effects for ethnicity was not significant $F(1,79) = 0.96$, $p = 0.33$. Similarly the main effects for gender was not significant $F(1,79) = 1.60$, $p = 0.21$.

There were no significant differences between males and females as pertaining to posttraumatic growth but there were gender differences in the occurrence of posttraumatic stress symptoms (see Table 7 below).

Table 7: Means of PTSS and PTG according to gender

Gender	N	PTG	PTSS
Males	15	58.53	41.53
Female	65	60.16	47.78

5. DISCUSSION

5.1 Research findings

The current analysis examined the effects that ethnocultural identity has on the experience of posttraumatic growth and posttraumatic stress symptoms in a racially diverse sample of university students.

In this research the hypothesis predicting that ethnocultural identity has a role on posttraumatic growth was not met. Posttraumatic growth is a complicated process and ethnocultural identity is influenced by a variety of external influences suggesting that factors such as context drive the models for understanding ethnocultural identity (Yeh & Hwang, 2000). Furthermore, Yeh and Hwang (2000) established that ethnocultural identity development is strongly influenced by one's social context and external factors such as geographic location, educational setting, relationships, stereotypes and racism. This study was not designed to examine these possible contributing factors to an individual's sense of ethnic identity.

There were no significant relationships between ethnic identity and posttraumatic growth thus we could gather from the findings of this study that posttraumatic growth is a complex process. Investigating the processes that are at work across cultural lines in terms of coping mechanisms that are used could have been helpful in understanding the role of posttraumatic growth in this current study. Perhaps this could provide insight into the personal resources that are available to individuals and how these are influenced by cultural differences. As consistent with coping effectiveness literature there are clear differences in the way people deal with stress-provoking situations. Primary strategies have been defined as implying changing the environment to suit the self whilst on the other hand secondary strategies suggest changing the self to suit the environment through more cognitive processes. Cross (1995) speculated that primary or direct coping strategies are utilised more by people in individualistic cultures while secondary mechanisms may be more adaptive for those in collectivist cultures. Whilst this study's scope did not include the investigation of the relationship between ethnic identity and coping strategies there is evidence indicating the saliency of culture in this regard.

The present study confirmed that ethnocultural identity interacts with ethnicity to moderate posttraumatic stress symptoms. Hence, this research raises interest regarding the role of ethnocultural identity in moderating the effects of posttraumatic stress symptomatology. The protective aspect of high group identification has been explored and has been positively linked to psychological wellbeing and lower levels of loneliness and depression (Cole, Matheson & Anisman, 2007). The benefits of strong ethnic identity have been outlined by Cole et al. (2007). They suggest that higher group identification might promote access to in-group support resources that might decrease the severity of posttraumatic stress symptoms.

On expansion of the results of this study, it can be stated that ethnicity and ethnocultural identity had an impact on whether participants reported experiencing more or less intense posttraumatic stress symptoms. Participants ascribing to the Black South African and Indian ethnicity categories seemed to report fewer posttraumatic stress symptomatology if they identified more strongly with their ethnic group. The reverse was true for the same participants if they identified less with their ethnic group, they reported experiencing more posttraumatic stress symptoms. Participants falling within the South African White and Black African other countries who identified more strongly with their ethnic group presented with more posttraumatic stress symptomatology. The less they identified with their ethnic group, the less posttraumatic stress symptoms they reported. One could argue that the reason there was a positive interaction between ethnic identity and ethnicity in Black South Africans and Indians is that ethnic identification is related to the socio-political history. Horowitz (1985) argues that ethnic identification should be highest in ethnic groups that have been“historically marginalised or economically disadvantaged”. McMahon and Watts (2002) tentatively attributed African American youth scoring higher on ethnocultural identity to marginalisation. They suggested that marginalisation encourages stronger in-group patterns of association or identity.

The possible reason as to why White South Africans and Black Africans from other countries living in South Africa who affiliated strongly with their ethnic group, reported more severe posttraumatic stress symptomatology as was found in this present study, is due to the contrasting meanings of self and identity. In addition the results of this study indicate that Black South Africans and Indians benefit more from strong ethnocultural identity in terms of developing posttraumatic stress symptoms. Taken together the above findings necessitate the contextualisation of the cultures implicated in this study. There are two frameworks of understanding cultures namely individualistic and collectivistic cultures. Kim, Park and

Suzuki (1990) intimate that the individualism-collectivism dimension respectively, emphasises the primacy of the individual and the group in social interactions. Triandis, McCusker and Hui (1990) provide examples of such cultures, describing the United States and Western Europe as characteristic of individualism. Furthermore, Triandis et al. (1990) recognise that individualistic cultures emphasise autonomy, emotional independence and primacy of personal goals over in-group goals. In contrast, Triandis et al. (1990) suggest that collectivistic cultures are integrated into strong, cohesive in-groups. Therefore there is an emphasis on collective identity, emotional dependence, duties and obligations, behaviour regulation by in group norms, family integrity and strong in-group-out-group distinctions.

There is also research that sets forth an understanding of collectivistic and individualistic cultures with reference to how they influence and shape identity formation and self (Markus & Kitayama, 1991). Markus and Kitayama (1991) suggest that there are independent and interdependent self-construal systems. In support of this view, Yeh and Hwang (2000) cite the example of America as an independent culture where there exists a variation of the meanings of self and identity. Therefore difficulties such as psychological stress have been associated with trying to balance contrasting values from two different cultures. They state that in comparison to interdependent cultures, trying to understand one's ethnic identity can often lead to identity confusion and crisis. I propose that White South Africans in this study are more likely to come from individualistic/independent cultures whereas Black South Africans, Indians and Africans from other countries are from more collectivistic or interdependent cultures. Consequently, Yeh and Hwang's (2000) notion of trying to balance contrasting values from two different cultures might resonate more with White South Africans because they are most likely to come from independent cultures

Adam (1995) highlights the fact that ethnic identity plays the protective role of shielding the individual from a hostile environment as it equips them with psychological strength. He specifically outlines the success of Indian South Africans in shielding themselves from the degradation of apartheid as attributable to this cultural 'narcissism'. There could be a number of reasons that explain why White South Africans and Africans from other countries with strong ethnocultural identity are more prone to experience greater posttraumatic stress symptomatology. There is the possibility of having multiple identities and not being able to identify with any specific one. The factors of acculturation also have to be considered when looking at different populations and these could also possibly impact on individuals' sense of ethnocultural identity. In particular Black Africans from other African countries living in

South Africa possibly encounter some challenges of living in South Africa. Being away from their primary support systems in their home countries could predispose them to loneliness and solitude which could perpetuate posttraumatic stress disorder. In addition, Black Africans from other countries are most likely the victims to xenophobic attacks that impact negatively on the psychological well-being of individuals resultantly increasing the risk of developing posttraumatic stress symptoms.

Analysis of variance was conducted and there was a significant difference in the gender of the participants with regard to the experiencing of posttraumatic symptoms. Females reported more posttraumatic symptomatology in comparison to their male counterparts. These findings were consistent with findings in research pertaining to gender differences in posttraumatic stress disorder and symptoms. Breslau, Davis, Andreski, Peterson and Schultz (1997) established that the prevalence of posttraumatic stress disorder was higher for women than for men exposed to traumatic events. Breslau et al. 1997 proposed that this could be explained by the women's previously identified risk factors. It was reported that the women had pre-existing anxiety or major depressive disorders and that this may have played a part in the observed sex difference in posttraumatic stress disorder. Sax and Wolfe (1999) hypothesized that cognitions related to trauma, such as helplessness, are more disparate with men's self-concepts and that men are therefore more highly motivated to alter their thoughts about the trauma in order to reduce the dissonance.

The correlational analysis showed a negative significant correlation between age and the five domains of the Posttraumatic Growth Inventory and the overall Posttraumatic Growth Inventory score. Age also seemed to be inversely related to developing posttraumatic stress symptoms and posttraumatic growth. Findings consistent with the negative relationship between age and posttraumatic stress symptoms concur in showing that fewer PTSD symptoms were found in the youngest age group in contrast to their older counterparts (Green, Korol, Grace, Vary, Leonard, Gleser & Smitson-Cohen, 1991). There is also evidence pointing particularly to significant differences in posttraumatic stress symptoms found between elderly and younger adults, the elderly scored higher on arousal symptoms and lower on intrusive symptoms (Goenjian, Najarian, Pynoos, Steinberg, Manoukian, Tavosian & Fairbanks, 1994). This suggests that the age differences might exist within the various subscales of the posttraumatic stress inventory. This study did not afford the opportunity to analyse the subscales of the IES-R (measuring posttraumatic stress symptoms)

and correlate them with the demographic variables. No conclusive statements regarding age and posttraumatic growth have been found in posttraumatic growth research. The degree to which age impacts the individual's stage of life and maturity on the process of posttraumatic growth has been neglected (Park, 2004). Although this is the case there have been studies that suggest an increase in posttraumatic growth over time and thus age has been implicated.

There was a positive correlation between PTG and posttraumatic stress symptoms. As the majority of research tends to support a positive linear association between severity of trauma and level of PTG (McMillen, Smith & Fisher, 1997), this study also established that more severe trauma symptoms will predict higher levels of PTG. Tedeschi and Calhoun (1996) support these results and attest to the idea that PTSD increases linearly with growth experience. They explain that individuals experiencing severe trauma tend to report a great degree of change. Unlike the results of this study, other research proposes that moderate levels of PTSD and not necessarily high levels of PTSD facilitate the most growth (Levine, Laufer, Hamama-Raz, Stein & Solomon, 2008). High levels of PTSD in the facilitation of growth, suggests a curvilinear relation between PTSD and PTG.

No significant relationships were established between ethnic identity and age. This is contrary to what the author of the Multigroup Ethnic Identity Measure reported. Phinney (1992) reported significant age effects on total ethnic identity scores and all the subscales of the Multigroup Ethnic Identity Measure. She explained that the presence of higher scores among the older subjects provided evidence that ethnic identity consolidates with age. The discrepancy between the results of this study and what Phinney reported could be due to the younger sample size she used as compared to a much older sample that was used in this study. In addition, as reviewed in the ethnocultural identity development literature ethnocultural identity has been found to be more salient in the adolescent age group.

5.2 Limitations

The sample used in this present study was very small and even though the sample was ethnically diverse, caution in generalising the findings to young adults in the South African context is warranted. Time constraints also impacted on the use of a smaller sample size.

One of the major variables of interest in the study ethnocultural identity was measured using Phinney's Multigroup Ethnic Identity Measure but it was not within the scope of this research

to investigate sufficient diversity within categorical ethnic groups. The participant's ethnic group was categorised by use of certain criteria.

Findings of this study suggest quite a number of negative relationships between age and some of the variables in this study. The age range of the sample size was 18-26 years which was not completely representative of the distinction between younger and older population. Therefore these findings are relative to the student population that was used.

It should be noted that categorising the ethnic groups in this study could be seen as problematic and overly simplistic because within the ethnic groups that were used in the analysis, there were some variations potentially have a bearing on the type of culture proposed for a specific ethnic group. For example in the White South African category there were people who identified themselves as Jewish and some as White Afrikaans. The Jewish subcategory alone implies a mainly collectivistic culture whilst the White Afrikaans subcategory could be influenced by a number of factors that would render it individualistic or collectivistic. There is evidence pointing to the fact that ethnocultural identification in White Afrikaans people has been influenced by South Africa's socio-political scene. Korf and Malan (2002) investigated threats to ethnic identity in White Afrikaans speaking people in South Africa. They found that respondents who felt that Afrikaaners would not continue as a distinct group in society did not show strong ethnic identification and had a negative collective self-esteem (Korf & Malan, 2002).Within the independent versus interdependent self-construal system of thinking there is an assumption that some countries fall within a certain cultural framework. But South Africa seems to present a challenge in teasing out the specific cultural framework in which different ethnic groups fall in. The researcher was presented with difficulties in defining what the beliefs of for example Black South African subscribe to in postmodern South Africa that help them mitigate the effects of posttraumatic stress symptoms.

This study was also a cross-sectional study and thus the responses of the participants were only measured at one point in time and could not be studied over a longer period of time due to the smaller scope of the research.

5.3 Recommendations

The primary focus of this research was directed at examining the role of ethnic identity on posttraumatic and posttraumatic stress symptoms. But it should be noted that the construct of ethnocultural identity has not been explored at length in the South African population. Therefore much research needs to be done to provide more insight into the emergence and pattern of ethnocultural identity in different South African samples. As such I propose that in-depth exploration of this concept should be investigated in South Africa. Ontai-Grzebik and Raffaelli (2004) recognised that the process of identity development was markedly different among ethnically diverse adolescents and young adults in the United States. They discussed how identity development is a unique challenge because individuals have to negotiate traditional domains of identity and in addition they must decide what their ethnicity means to them. This research proposes that the same could be true and thus be considered for South African young adults and adolescents, especially given South Africa's traumatic past was anchored on ethnicity itself.

Ford (2008) suggests that future research should seek to meaningfully describe and study racial, ethnic and cultural differences in exposure to psychological trauma and posttraumatic impairment or resilience and recovery. This will provide a gateway to prescribing approaches to avoid or ameliorate trauma's adverse effects. Therefore, clinicians should take into account appropriate modes of intervention based on cultural indicators in the management of trauma victims. The area of posttraumatic growth still provides the potential for developing new ways of working therapeutically with people who have experienced stressful and traumatic events (Joseph, Linley & Harris, 2004). Although no inferences regarding posttraumatic growth could be drawn in this present study there seems to be a need to further understand personal growth and positive change processes in research.

It would also be particularly noteworthy to explore ethnocultural identity potentially as a protective factor contributing to posttraumatic growth. Holleran and Waller (2003) explored ethnic identity of Chicano adolescents' perceptions of life challenges with traditional Mexican values and beliefs and found these beliefs rooted in traditional Mexican American culture to be a protective factor in resilience among second generation Mexican American adolescents. Ethnic identity seems to play a role in facilitating the level of posttraumatic stress symptoms therefore implicating the importance of promoting ethnocultural identity ties

in some populations. McMahon and Watts (2002) urge that a strengthening of ethnoracial and political consciousness among youth is a preventive measure of psychological well-being.

Violence continues to be a major problem in the South African population and it is related to numerous negative outcomes among youth including mental health problems. As thus research should continue with the investigation of factors that contribute to knowledge of posttraumatic stress symptomatology in South African youth or young adults.

This present study as consistent with most posttraumatic growth research used a convenience sample of students. Levine, Laufer, Hamama-Raz, Stein and Solomon (2008) suggest that more epidemiological samples are needed to study growth comprehensively. Therefore future research should methodologically focus on more longitudinal and multiple methods of study such as peer report studies.

6. CONCLUSION

The present study sought to examine the relationships between ethnocultural identity, ethnicity and posttraumatic growth and posttraumatic stress symptoms. Ethnicity facilitated the role of ethnocultural identity in predicting the severity of posttraumatic stress symptoms in a sample of ethnically diverse South African students. It was a cross-sectional study using a correlational and multiple analysis of variance type of analyses.

The findings of this study give a weight to the importance of ethnocultural identity and it's interaction with ethnicity in contributing to posttraumatic stress symptomatology. It was found that Black South Africans and Indians reported showing the least posttraumatic stress symptomatology when strongly identifying with their ethnic group and identifying less had counteracting effects on their posttraumatric stress symptomatology leading to more severe symptoms. On the other hand, it was noted that White South Africans and Black Africans from other countries presented with a scenario that was in contrast with the aforementioned ethnic groups. This research study proposes that in the event of the aftermath of a traumatic incident there is mostly likely to be a life altering perception of the self and the world as supported by many trauma theorists (Janoff-Bulman, 1992). Having some sort of belief, value and cultural framework from which one can make sense of themselves and the world may prove to provide a protective role in the severity or experience of posttraumatic stress symptoms. But this only applied to people who identified with specific cultures but not for other cultures. In this present study, Black South Africans and Indians specifically benefited from strongly identifying with their culture as indicated by fewer posttraumatic stress symptoms. But in contrast, White South Africans and Black Africans from other African countries living in South Africa indicated greater posttraumatic stress symptoms for identifying strongly with their cultures. As such, the potential benefits of ethnic identity in various cultures needs to be explored at length. There may be different factors contributing to the appreciation of ethnocultural identity in different ethnic groups. However, it should be emphasised that an individual's evaluation and perception of the benefits of ethnocultural identity are of utmost importance in determining the role of ethnocultural identity in their psychological well-being. However it should also be taken into account the cultural background of the individual whether he comes from an independent or interdependent framework of living as outlined by Markus and Kitayama (1991).

This research also points to the fact that posttraumatic growth is still a widening area of research in South Africa. As such, factors leading to its enhancement still need to be explored to enable appropriate facilitation of interventions that will take into consideration a population's background characteristics. Perhaps early interventions curtailing the development of posttraumatic stress disorder should address the client's concerns by examining the surrounding contexts that shape the client's experience, interactions and sense of self (Yeh & Hwang, 2000). Among Black South Africans and Indians where there is a more collectivist emphasis, interventions should maybe be more community-based and encouraging more group-oriented networks. Whereas White South where there is more emphasis on individualism perhaps more cognitive based interventions and those that emphasis on personal resources should be promoted.

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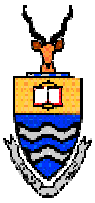
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8. APPENDIX A: Participant Information Letter



UNIVERSITY
OF THE
WITWATERSRAND,
JOHANNESBURG

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg, South Africa
Tel: (011) 717-4500 Fax: (011) 717-4559

Hi

Our names are Samantha Walsh and Sannah Moeti, and we would like to invite you to participate in our research projects that we are undertaking as part of obtaining our Masters in Clinical Psychology, at the University of the Witwatersrand.

Our research projects focus on trauma, and on how we respond to and deal with the aftermath of trauma. We are specifically trying to identify factors and mechanisms that come into play in response to the struggle with a trauma. The aim is to contribute not only to literature on the subject, but also to generating new ideas around interventions in coping with trauma.

If you choose to participate in this project you will be asked to complete a series of questionnaires. The questionnaires relate to how we make sense of our world, and how we respond to the demands it makes on us, with a focus on trauma. These questionnaires are not tests, in other words there is no pass or fail, and will take approximately 20-30 minutes to complete. If you choose to complete the questionnaires please answer as carefully and honestly as possible.

While you will be asked questions of your personal circumstances you will not be asked for any identifying information such as your name or student number. As such you will remain anonymous. With regards to your responses, all information will be treated in a confidential manner, and will not be made public in any way that could reveal your identity to an outside party. Results will be used for research purposes and may be reported in scientific journals, but not in any way that will reveal any specifics of any one individual. By filling in the following questionnaires you will be giving your consent to participate in this study.

Participation in the study will be taken as consent. It must be stressed that your participation in the research process is voluntary, and you may withdraw at any time. Participation will have no benefits to you, however this research will be asking you to think of a difficult experience, which may have minimal risk of distress. If you are feeling distressed in any way please contact one of the researchers to facilitate a counselling session through one of the following organisations who offer free counselling services:

Emthonjeni Wits Clinic	Tel: (011) 717 4503	(open on Thursdays)
CSVR Trauma Clinic	Tel: (011) 403-5102	
Lifeline	Tel: (011) 728-1347	

Finally, for anyone who is interested in the outcome of the research project, you will be given a one-page summary of the research results on request. You may contact the researchers by email or consult the psychology department notice board after April 2011.

We thank you for your time!

Kind Regards

Samantha Walsh

(Clinical Psychology Student)

Samantha.Walsh@students.wits.ac.za

Sannah Moeti

(Clinical Psychology Student)

Sannah.Moeti@students.wits.ac.za

_____

Dr. Esther Price

(Supervisor)

Esther.Price@wits.ac.za

9. APPENDIX B: Registrar - Permission

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg, South Africa
Tel: (011) 717-4500 Fax: (011) 717-4559

To The Registrar: Dr. Derek Swemmer

Dear Sir

Our names are Samantha Walsh and Sannah Moeti, and we are undertaking research in partial fulfilment for the degree of Master of Arts in Clinical Psychology.

Our research project is located within the field of trauma, with a specific focus on how individuals respond to, and deal with the aftermath of a traumatic event. The aim is to identify factors that relate to the frequently reported phenomenon of posttraumatic growth. A portion of individuals who have experienced a traumatic event tend to report growth in the aftermath in a number of very important areas. The present study aims to investigate some of the predictors of that growth and in the broader sense, to identify mechanisms that can perhaps be used to facilitate posttraumatic growth in other traumatized individuals. It would be beneficial to the overall study if our sample were as diverse as possible. As such we are seeking permission from you to approach the following faculties in order to invite the students to participate in our study. The faculties are as follows: Faculty of Humanities; Faculty of Law, Commerce and Management; and the Faculty of Engineering and the Built Environment.

All ethical considerations have been taken to ensure that a) the risk of distress due to the study is minimal and that b) in the event of a student experiencing distress, that free counselling services are available to that individual. All other ethical requirements as laid out by the university have also been taken into account.

Your support on this project would be greatly appreciated. Abridged results can be made available to yourself and your office at the completion of this research, if you so wish it to be.

Yours sincerely

Samantha Walsh
(Clinical Psychology Student)
082 689 0511
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Sannah Moeti
(Clinical Psychology Student)
073 139 3688
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Dr. Esther Price
(Supervisor)
011 717 4517
Esther.Price@wits.ac.za

10. APPENDIX C: Permission Letter

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg, South Africa
Tel: (011) 717-4500 Fax: (011) 717-4559

To: The Dean of the Faculty of Commerce, Law and Management

Dear Sir/Madam

Our names are Samantha Walsh and Sannah Moeti, and we are undertaking our Masters in Clinical Psychology, at the University of the Witwatersrand. We are asking for your permission to conduct our research at the University of the Witwatersrand, and specifically for permission to approach lecturers in your department for permission to meet with their students.

Our research projects focus on trauma, and on how individuals respond to, and deal with the aftermath of a traumatic event. The aim is to identify factors that relate to posttraumatic growth and in the broader sense, to identify mechanisms that can benefit others. The manner in which our data will be collected is through the administering of a set of questionnaires that are reliable and valid, and will be collected by the researchers. The prospective participants will be given an information sheet (see attached) that gives them relevant facts as to what their participation will entail, and as to the outcomes thereof. In particular the issue of confidentiality and anonymity are addressed. The questionnaires will take the participants approximately 20-30 minutes to complete. As participation does not require face-to-face administration, nor is any identifying information requested from the participants, confidentiality and anonymity are preserved.
If you are interested in the outcome of these research projects, the research reports will be made available to you on request. The contact details of the researchers and our supervisor are detailed below if you are in need of any further information.

We look forward to your response.

Kind Regards

Samantha Walsh
(Clinical Psychology Student)
082 689 0511
Samantha.Walsh@students.wits.ac.za

Sannah Moeti
(Clinical Psychology Student)
073 139 3688
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_____
Dr. Esther Price
(Supervisor)
011 717 4517
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11. APPENDIX D: Permission Letter

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg, South Africa
Tel: (011) 717-4500 Fax: (011) 717-4559

To: The Dean of the Faculty of Humanities

Dear Sir/Madam

Our names are Samantha Walsh and Sannah Moeti, and we are undertaking our Masters in Clinical Psychology, at the University of the Witwatersrand. We are asking for your permission to conduct our research at the University of the Witwatersrand, and specifically for permission to approach lecturers in your department for permission to meet with their students.
Our research projects focus on trauma, and on how individuals respond to, and deal with the aftermath of a traumatic event. The aim is to identify factors that relate to posttraumatic growth and in the broader sense, to identify mechanisms that can benefit others. The manner in which our data will be collected is through the administering of a set of questionnaires that are reliable and valid, and will be collected by the researchers. The prospective participants will be given an information sheet (see attached) that gives them relevant facts as to what their participation will entail, and as to the outcomes thereof. In particular the issue of confidentiality and anonymity are addressed. The questionnaires will take the participants approximately 20- 30 minutes to complete. As participation does not require face-to-face administration, nor is any identifying information requested from the participants, confidentiality and anonymity are preserved.

If you are interested in the outcome of these research projects, the research reports will be made available to you on request. The contact details of the researchers and our supervisor are detailed below if you are in need of any further information.

We look forward to your response.

Kind Regards

Samantha Walsh
(Clinical Psychology Student)
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Dr. Esther Price
(Supervisor)
011 717 4517
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12. APPENDIX E: Demographic Questionnaire

Please mark the option that applies to you, where appropriate.

1. Age: [ ]

2. Gender:

Male	Female

3. Language:

English	Afrikaans	Ndebele	Xhosa	Zulu
Sepedi	Sesotho	Tswana	Swati	Venda
Tsonga	Shona	Other		

If other, please specify: _____

13. APPENDIX F: Traumatic Stress Schedule

This questionnaire asks about various potentially traumatic events you may have experienced in your lifetime. Feel free to cross out more than one event, if you have experienced more than one of these by crossing all those that apply to you. Please read the statements below and answer the questions by choosing the answer of your choice. Please place a cross (x) over the chosen answer. Write in your answer for question 10.

1	Did anyone ever take or attempt to take something from you by force or threat of force, such as in a robbery, mugging, smash and grab or holdup?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
2	Did anyone ever beat you up or attack you?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
3	Did anyone ever make you have sex by using force or threatening to harm you? This includes any type of unwanted sexual activity.	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
4	Did a very close friend or a close family member ever die because of an accident, homicide, or suicide?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
5	Have you ever been hijacked or someone very close to you been hijacked?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
6	Were you ever in a motor vehicle accident serious enough to cause injury to one or more passengers?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
7	Did you ever serve in combat?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
8	Did you ever suffer injury or extensive property damage because of fire?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
9	Did you ever suffer injury or property damage because of severe weather or either a natural or manmade disaster?	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago
10	Did you experience any other events not mentioned above? If so, please specify below.	No	Yes	0-3 months ago	3-6 months ago	6-12 months ago	12-18 months ago	18-24 months ago	more than 24 months ago

Specify other

_____

14. APPENDIX G: Impact of Events Scale-Revised

Instructions: The following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you with respect to **the most recent stressful life event**. Please try to also remember how you felt in the weeks after the event. Please indicate which event you were thinking of and how long ago this event took place.

Stressful/ traumatic event:_____ How long ago: _____

How much were you distressed or bothered by these difficulties?

		Not at all	A little Bit	Moderately	Quite a bit	Extremely
1.	Any reminder brought back feelings about it.	0	1	2	3	4
2.	I had trouble staying asleep.	0	1	2	3	4
3.	Other things kept making me think about it.	0	1	2	3	4
4.	I felt irritable and angry.	0	1	2	3	4
5.	I avoided letting myself get upset when I thought about it or was reminded of it.	0	1	2	3	4
6.	I thought about it when I didn't mean to.	0	1	2	3	4
7.	I felt as if it hadn't happened or wasn't real.	0	1	2	3	4
8.	I stayed away from reminders of it.	0	1	2	3	4
9.	Pictures about it popped into my mind.	0	1	2	3	4
10.	I was jumpy and easily startled.	0	1	2	3	4
11.	I tried not to think about it.	0	1	2	3	4
12.	I was aware that I still had a lot of feelings about it, but I didn't deal with them.	0	1	2	3	4
13.	My feelings about it were kind of numb.	0	1	2	3	4
14.	I found myself acting or feeling as if I was back at that time.	0	1	2	3	4
15.	I had trouble falling asleep.	0	1	2	3	4
16.	I had strong waves of feeling about it.	0	1	2	3	4
17.	I tried to remove it from my memory.	0	1	2	3	4
18.	I had trouble concentrating.	0	1	2	3	4
19.	Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea or a pounding heart.	0	1	2	3	4
20.	I had dreams about it.	0	1	2	3	4
21.	I felt watchful and on guard.	0	1	2	3	4
22.	I tried not to talk about it.	0	1	2	3	4

15. APPENDIX H: Posttraumatic Growth Inventory

STEP 1: Identify a Life-Altering Event

Think about a traumatic or life-altering event that has occurred recently in your life.

A. What experience are you thinking of?: _____

B. How long ago did it take place?

□ 0- 3 months ago □ 18- 24 months ago

□ 3- 6 months ago □ 2 –3 years ago

□ 6- 9 months ago □ 3- 4 years ago

□ 9- 12 months ago □ 4- 5 years ag0

□ 12- 18 months ago □ More than 5 years

STEP 2: Answer the Following Questions

Indicate for each of the following statements the degree to which the change reflected in the question is true in your life as a result of your crisis, using the following scale:

0= I did not experience this change as a result of my crisis.

1= I experienced this change to a very small degree as a result of my crisis.

2= I experienced this change to a small degree as a result of my crisis.

3= I experienced this change to a moderate degree as a result of my crisis.

4= I experienced this change to a great degree as a result of my crisis.

5= I experienced this change to a very great degree as a result of my crisis.

1	I changed my priorities about what is important in life.	
2	I have a greater appreciation for the value of my own life.	
3	I developed new interests.	
4	I have a greater feeling of self-reliance.	
5	I have a better understanding of spiritual matters.	
6	I more clearly see that I can count on people in times of trouble.	
7	I established a new path for my life.	
8	I have a greater sense of closeness with others.	
9	I am more willing to express my emotions.	
10	I know better that I can handle difficulties.	
11	I am able to do better things with my life.	
12	I am better able to accept the way things work out.	
13	I can better appreciate each day.	
14	New opportunities are available which wouldn't have been otherwise.	
15	I have more compassion for others.	

16	I put more effort into my relationships.	
17	I am more likely to try to change things which need changing.	
18	I have a stronger religious faith.	
19	I discovered that I'm stronger than I thought I was.	
20	I learned a great deal about how wonderful people are.	
21	I better accept needing others.	

16. APPENDIX I: Multigroup Ethnic Identity Measure

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are White Jewish, White German, White Afrikaans, White English, Black English, White Italian, Asian, Ndebele, Sotho, Zulu, Xhosa, Coloured and many others. The following questions are about your ethnicity or your ethnic group, and how you feel about it or react to it.

Please fill in:

In terms of ethnic group, I consider myself to be

_____

For Questions **1** to **12** please use the numbers below to indicate how much you agree or disagree with each statement.

(1) Strongly disagree (2) Disagree (3) Agree (4) Strongly Agree

1	I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.	
2	I am active in organizations or social groups that include mostly members of my own ethnic group.	
3	I have a clear sense of my ethnic background and what it means for me.	
4	I think a lot about how my life will be affected by my ethnic group membership.	
5	I am happy that I am a member of the group I belong to.	
6	I have a strong sense of belonging to my own ethnic group.	
7	I understand pretty well what my ethnic group membership means to me.	
8	In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.	
9	I have a lot of pride in my ethnic group.	
10	I participate in cultural practices of my own group, such as special food, music, or customs.	
11	I feel a strong attachment towards my own ethnic group.	
12	I feel good about my cultural or ethnic background.	

For Questions **13** to **16** please answer in the space provided.

13	My ethnicity is,	
14	My father's ethnicity is,	
15	My mother's ethnicity is,	
16	I follow the customs and traditions of my;	
a.	Father	
b.	Mother	
c.	Peer group	
d.	Other (please specify)	