

LIFE ADVERSITIES, TRAUMATIC STRESS, AND POST-TRAUMATIC GROWTH OF HIGH SCHOOL LEARNERS IN SOUTH AFRICA

By

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DECLARATION

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ETHICS STATEMENT

The author, whose name appears on the title page of this dissertation, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that he has observed the ethical standards required in terms of the University of Pretoria's Code of ethics for researchers and the Policy guidelines for responsible research.

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ABSTRACT

This study investigated the relationship between life adversities, traumatic stress and post-traumatic growth in a sample of 300 high school learners, in Limpopo Province in South Africa, between the ages of 13 and 21 years old. This is a quantitative study that used a correlational research design in order to achieve the study aim. This study had four objectives (1) to explore the prevalence of exposure to life adversities and traumatic stress (2) to explore the nature of the relationship between life adversities and traumatic stress (3) to explore the role of post-traumatic growth on the relationship between life adversities and traumatic stress, (4) to determine life adversities, traumatic stress, and post-traumatic growth according to gender difference. The results showed that 70 percent of the participants reported having been exposed to at least one adverse event in their lifetime. 31.3 percent of these participants reported enough symptoms that are suggestive to of significant distress based on the PTSD screening tool. Furthermore, the finding indicated that there is a significant positive correlation (with a regression coefficient of $\beta = 0.512$, $t = 10.404$, $p < 0.001$) between exposure to life adversities and traumatic stress, while traumatic stress is positively and significantly related (with a regression coefficient of $\beta = 0.152$, $t = 3.090$, $p = 0.002$) to PTG. PTG was not indicated to have a significant moderating role in the relationship between exposure to life adversities (frequency) and traumatic stress. Finally, the results indicated that there is no statistically significant differences in exposure to life adversities as well as the prevalence of traumatic stress across the two genders.

Keywords: life adversities, traumatic stress, post-traumatic stress, learner, gender differences and South Africa.

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ACRONYMS AND ABBREVIATIONS

DOE	Department of Education
DSM	Diagnostic and Statistical Manual
FTTP	Full-time Training Pretoria
PTG	Posttraumatic growth
PTGI	Posttraumatic growth inventory
PTSD	Posttraumatic stress disorder
PTSS	Post-traumatic stress symptoms
THQ	Trauma History Questionnaire
TSQ	Trauma Screening Questionnaire

CHAPTER 1: INTRODUCTION

1.1 Background to the Study

High school learners (otherwise referred to as *learners* throughout this study) are constantly faced with many life events, of which some can be pleasant experiences, while others are adverse experiences (Sacks, 2003). Adverse life events often result in a shattering effect (i.e., a shattering of an individual's assumptions about themselves, others, and the world) that leaves them with the need to reconcile or re-integrate those shattered assumptions. Depending on how they process and engage with the content of the adverse life events, the outcome could be positive or negative (Davis & Wohl, 2007).

High school learners find themselves in a significant development period, as the majority are in either in their early, mid, or late adolescence (Netshikweta, Olaniyi, & Tshitangano, 2018). It is during this developmental period that individuals experience significant changes in their bodies. Studies have indicated that it is during this developmental period that individuals are most vulnerable to stressful life experiences and also to severe mental health difficulties (Drabick & Kendall, 2010; Netshikweta et al., 2018). A study conducted in the United States by Burke et al. (2011) indicated that two out of three learners have at least experienced one life adversity in their lifetime. These adversities can include physical and sexual violence, accidents, sudden loss of a loved one, seeing a dead body, or witnessing a violent event happen to another individual(s) (Atwoli et al., 2013). One of such adverse events that learners are exposed to includes school violence; for example, in 2015, South Africa was found to be the country with the second-highest rate of school violence incidents in the world (Geldenhuys, 2016b). Such high levels of school violence have sparked a serious concern and urgent call for action around the globe (Mampane et al., 2014). Furthermore, learners, like most the other populations, have also been affected by traumatic experiences that are directly related to the novel Covid-19 pandemic which affected the whole world. This study explores multiple life adversities that learners are exposed to, as well as the impact (both positive and negative) that these life adversities have on these individuals.

1.2 Problem Statement

Many studies have been conducted on traumatic stress among adults, thus it has been somewhat well characterised in adults (Berenson, 1998; Grasso et al., 2009; Hamblen & Barnett, 2016). There is a high prevalence rate (75-100 percent) of exposure to trauma among the South African youth (Rossouw et al., 2018). However, little is understood concerning the processes of trauma-related phenomena in adolescents (Choi et al., 2019). In addition, although there has been research done on trauma in South Africa, there is not much literature on Venda-speaking or Northern Sotho-speaking individuals, who are situated in Limpopo (Esterhuysen et al., 2007). A search of the literature has also indicated that there have been few mental health-related, particularly trauma-related, studies among learners in Limpopo over the past five years. More specifically, several studies have indicated that socioeconomically disadvantaged areas (which is where the target population of this study was found) are linked with few research studies (Esterhuysen et al., 2007; Peltzer, 2003; Shilubane et al., 2014; Wubs et al., 2009) exploring mental health-related issues, which may suggest that little is known about the prevalence and impact of mental health in these areas. Other studies (Seedat et al., 2000; Haynie et al., 2006; Mampane et al., 2014; McGowan & Kagee, 2013) indicate that such socioeconomically disadvantaged areas are linked to a higher potential of exposure to life adversities and traumatic stress. This suggests that there may be many individuals who are experiencing significant distress as a result of exposure to traumatic life experiences. However, many of these individuals may not be identified due to a lack of knowledge and awareness. Thus, there is a need for more research to be done in this part of the country, which would promote the awareness of the existence of trauma-related distress. By so doing, this study is contributing knowledge to the study of traumatic stress in socioeconomically disadvantaged communities and also sheds light on the relationship between life adversities, traumatic stress, and post-traumatic growth.

1.3 Research Aim and Objective

1.3.1 Aim

This research seeks to explore the relationship between life adversities and traumatic stress as well as to investigate the possible moderating role of post-traumatic growth on the relationship between life adversities and traumatic stress.

1.3.2 Objectives

- To explore the prevalence of exposure to life adversities and traumatic stress.
- To explore the nature of the relationship between life adversities and traumatic stress.
- To explore the moderating role of post-traumatic growth on the relationship between life adversities and traumatic stress.
- To determine life adversities, traumatic stress, and post-traumatic growth according to gender difference.

1.4 Research Questions:

The study is anchored on the following research questions:

- What is the prevalence of participants' exposure to life adversities and traumatic stress?
- What is the relationship between exposure to life adversities and traumatic stress in learners?
- What role does post-traumatic growth play in this relationship between the type of life adversities and traumatic stress among learners?
- What are the dynamics of life adversities, traumatic stress, and post-traumatic growth according to gender differences?

1.5 Significance of the Study

1.5.1 Theoretical Significance

This research contributes to the existing body of knowledge on the relationship between exposure to life adversities and traumatic stress among learners. It also assists with providing further empirical findings on the prevalence of life adversities and traumatic stress among Northern Sotho-speaking and Vhenda-speaking individuals in Limpopo Province. As indicated above, there has not been much research conducted on this population (Esterhuyse, Louw, & Bach, 2007). This study has also helped to produce information related to the traumatic and devastating life experiences that learners face in their daily lives, as well as the negative impact these negative life experiences have on them. This study highlights the prevalence of exposure to life adversities as well as the prevalence of traumatic stress. This information is crucial in raising awareness related to mental health difficulties that learners experience. This is especially important during this time

in world history, following the COVID-19 pandemic, which has been associated with an increase in mental health-related difficulties among young people, which include things such as acute stress, worry for family members, unexpected loss of loved ones, increase in rates of loneliness and isolation which was perpetuated by social isolation and sudden breaks in schooling (Cénat & Dalexis, 2020; Guessoum et al., 2020).

1.5.2 Policy Development Significance

Such a study providing clear evidence of the impact of mental health on individuals, in this case, high school learners, is instrumental in tackling global mental health crises. Other researchers have indicated that such information, should be “included in the policy framework and government strategies, not as an incidental issue, but as an integral part of the nationwide plan, with a clear focus on vulnerable individuals and communities” (Nguse & Wassenaar, 2021, pp. 308-309). In accordance with this presentation, the results from this study provide valuable information to the Department of Education (DoE) in Limpopo related to the seriousness of the prevalence of life adversities as well as traumatic stress among high school learners in this province. This information can assist the DoE in developing policies that are focused on helping to identify individuals who may be experiencing distress following traumatic events as well as developing policies related to how these individuals can be assisted.

1.5.3 Practical and/or Clinical Significance

Thus, this can assist in mobilising the necessary resources to help learners in distress to cope better with their distress. Furthermore, this information can assist in things like developing, improving, and updating the school curriculum in ways that can give special attention to mental health, thus, raising awareness and encouraging mental health-related discourse both among learners and the communities. This would also assist in tackling the problem of mental health-related stigmatisation.

1.5.4 Methodological Significance

Most of the studies, on trauma, reviewed by the researcher (the same as with this study) have used a quantitative research design. However, unlike most of these studies which focus on particular traumas (such as violence, rape, natural disasters or accidents), this study focuses on a large

spectrum of trauma, i.e., different kinds of traumas of different causes and consequences. Thus, it explores more inclusive and diverse experiences that learners are daily exposed to. Furthermore, most trauma studies conducted in Limpopo have been restricted to specific areas (i.e., either one community or district) in Limpopo, while this study has included participants from multiple and widespread areas in Limpopo (Esterhuyse et al., 2007; Peltzer, 1999; Peltzer, 2003; Peltzer et al., 2007; Wubs et al., 2009). This allows the researcher to have a better perspective and more holistic view (although still short) of the wider province as opposed to only one or two specific areas. Peltzer (1999, 2003) and Peltzer et al. (2007) was one of the few individuals who conducted trauma-related studies in Limpopo. However, it seems that there has been a significant lack of trauma-related research over the past five years in this province.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter explores the existing literature on the prevalence of life adversities and traumatic stress among individuals within this developmental period. It also focuses on exploring the nature of the relationship between these two variables. Furthermore, this chapter looks to explore the role of post-traumatic growth on the relationship between life adversities and traumatic stress. The chapter begins by providing operational definitions of concepts that are used throughout this research study.

2.2 Operational Definitions

- *Learners*: in this research study, the term refers to high school learners, i.e., learners from grades 8 to 12.
- *Life adversities*: the term life adversities refers to dire, unpleasant, and adverse life experiences. This term is used interchangeably with the terms traumatic event or stressful events throughout this research study.
- *Post-traumatic growth*: this term refers to the positive experiences of growth following an experience of a traumatic event.
- *Traumatic stress*: this term is used to refer to the negative experiences of distress following an experience of a traumatic event. This term is used interchangeably with post-traumatic stress symptoms (PTSS).

2.3 Life Adversities

2.3.1 Life Adversities in High School Learners

Most high school learners are in their adolescent developmental period which is associated with developmental changes that include rapid changes in individuals' physical, emotional, and psychological make-up (Netshikweta, Olaniyi, & Tshitangano, 2018). This developmental period has been identified to be associated (in some individuals) with increased risk-taking and sensation-seeking behaviour (Ciranka & van den Bos, 2021; Rosenbaum et al., 2018; Sawyer et al., 2018; Steinberg et al., 2018).

Furthermore, studies have indicated that it is during this developmental period that delinquent behaviour reaches its peak, as seen by the escalation of engagement in aggressive and violent behaviour among this age group compared to the other developmental age groups (Reid et al., 2022; Rutter & Scroufe, 2000; Sawyer et al., 2018). In keeping with these findings, certain studies have indicated that approximately 60 percent of high school pupils have experienced suicidal ideations or attempts, with other studies showing a 158 percent increase in homicides involving teenage victims between 1984 and 1993, while the rate (in 2006) indicated a 10 percent increase in homicides in the general population (Copelan, Messer, & Ashley, 2006). Although the researcher was unable to find a more recent comparison of the statistical increase in the rates of suicide and homicide, this serves as an indication of how there was a drastic increase in these cases over the years. The increase in delinquent and horrific behaviour has been linked with the “combination between poor response inhibition and increased reward sensitivity” (Ciranka & van den Bos, 2021, p. 2).

These findings indicate that learners are at a high vulnerability to exposure to adverse life events. This is believed to be because the developmental changes (i.e., changes in the body and development of identity) that adolescents experience have been associated with curiosity and an increase in the likelihood of trying out new behaviours, of which some are adaptive and involve low risk, while others are maladaptive and risky (Netshikweta, Olaniyi, & Tshitangano, 2018). These kinds of behaviours include (but are not limited to) pursuing romantic relationships, initiation into sexual activities and consumption of harmful substances (Mampane, Ebersöhn, Cherrington, & Moen, 2014).

In addition, learners live in societies/communities that play a significant role in either protecting or exposing them to life adversities. It is in these communities that they are often socialised into different kinds of behaviours, including both prosocial and antisocial, not only by their peers but also by various adults that they interact with in their communities (Mmari et al., 2014). South African communities are characterised by the prevalence of social injustices. Mampane et al. (2014) indicated that such communities model the “violent society” as a normal part of daily life. Thus, this normalises and encourages violent behaviour instead of prosocial behaviour (Mofokeng, Mathopo, & Mothibi, 2017; Polanin et al., 2021).

2.3.2 Types and Prevalence of Life Adversities

Learners are constantly faced with many adverse life events which may be due to multiple factors. Some may be due to internal factors within their control such as negligence or initiations (e.g., unprotected sex that leads to unplanned pregnancy) while others can be due to external factors, which are not within their control, such as being a victim of either violence or sexual assault or being involved in a car accident. Such adverse events have a high prevalence rate, both globally and locally. A study conducted in Limpopo, South Africa, by Peltzer (1999) indicated that 67 percent of the participants had been exposed to either direct or vicarious traumatic events, of which 8 percent displayed symptoms that met the Diagnostic and Statistical Manual (DSM) diagnostic criteria for post-traumatic stress disorder (PTSD). Only 7 percent of the participants reported not having been exposed to or experiencing a traumatic event. This is an old research paper; however, this is one of the few studies that have done a thorough exploration of both the prevalence of exposure to trauma and prevalence of traumatic stress in Limpopo. These experiences can have devastating effects on individuals, especially if not dealt with adaptively. The next sections focus on some common adverse events and their prevalence that learners in South Africa are often exposed to.

2.3.2.1 Violence

Violence is a global problem that affects a lot of individuals, including the victims, perpetrators, the significant others of those implicated in the acts of violence as well as the communities that these individuals live in and those in which the acts of violence occur. South Africa has a long history of violence. It is still prevalent at present. This has led South Africa to be one of the countries with the highest violence rates in the world (Shields et al., 2015). Violence within South African communities take different forms such as violent criminal behaviours, domestic violence, xenophobia, school violence or gender-based violence. This has unfortunately led to a large number of learners being exposed to these adverse events by either being directly involved as victims or perpetrators or by directly witnessing these events as they happen to others (Suliman et al., 2005). A community study conducted in the Western Cape (Khayelitsha) on children and adolescents between 6 and 16 years of age, indicated that 95 percent of the participants had been exposed to violent events, with a further 56 percent being directly involved in these violent events themselves (Suliman et al., 2005). Another study conducted by Esterhuyse et al. (2007) on

adolescents in Limpopo indicated that 94 percent of the participants had been exposed to a least one violent act, with 70 percent of them being victims of these violent acts. The Quarter Four Crime Statistics 2021/2022 report by the South African Police Minister Bheki Cele alarmingly indicated a 37.2 percent increase in murders of children under the age of 17 years old (South African Police Service, 2022).

The levels of exposure to life adversities, including levels of crime and violence in South Africa continue to increase gradually each year. The recent South African crime report indicated a 3.4 percent increase in murder cases from the previous year: this was reported to be 1.6 million crimes (Kempen, 2019). This has led to the continual spreading of violence, not only in the communities and homes but also on school premises. Not only is there an increase in the prevalence of violence and crime-related acts but the nature of the crimes has also become increasingly horrific over the years. This has been evident in recent years where there has been a gradual shift from students engaging in physical fights that result in little damage, to more gruesome cases that have resulted in severe and fatal injuries. This includes cases such as students stabbing one another or using firearms in their fights that often lead to many young people losing their lives and leaving their significant others, as well as the survivors or witnesses, devastated (van Jaarsveld-Schalkwyk, 2016).

There have been horrific cases globally involving violence at schools that left many students in vulnerable situations, where some sustained serious injuries while others, unfortunately, lost their lives. An example of this is the case at Marshall County High School, in the United States, where a 15-year-old pupil reportedly shot sixteen people, killing two fellow pupils while the remaining fourteen sustained injuries (Kempen, 2018). South Africa is no exception to these kinds of violent behaviour among pupils. In 2015, South Africa was ranked the second-highest country with the most violent incidents at schools (Geldenhuys, 2016b). An example of such horrific violent incidents on school premises is the case of Morne Harmse, at the Nic Diederichs Technical School in Krugersdorp, who reportedly stabbed a fellow learner to death while injuring three other people in the process (Kempen, 2018). There was a more recent incident at Forest High (Johannesburg) where a 16-year-old pupil was stabbed to death outside the school by a fellow pupil (Grobler, 2018). Two other cases in 2018 also left the country devastated. In June 2018, a man reportedly shot and killed his son (outside the school premises), and later in July of the same year, a man was

reportedly arrested for the fatal shooting of a 17-year-old pupil on the school premises at Mokogolokwe Middle School (Grobler, 2018).

These violent behaviours are not only restricted to individuals but also can involve gangs. Gang-based violence is another problem that South African pupils face, particularly in the Western Cape, where approximately 12 000 pupils were reported to have missed school (in 2013) due to the fear of gang-related violence. During this period, there were a few people involved in violent gang-related incidents. This includes a case of one pupil who was reportedly shot to death outside Spes Bona High School in Athlone (Geldenhuys, 2016b). There are different motives for these violent behaviours and different perpetrators (fellow pupils, teachers, parents, etc.); however, the effects that these events have on students have similarly devastating effects because of the similar nature of these events.

In addition to gang-related violence, learners are also exposed to “dating violence” which has been defined as “any intentional sexual, physical or psychological attack on one partner by the other in a dating relationship” (Wubs, et al., 2009, p. 75). Studies conducted in South Africa indicate that 20 percent to 50 percent of adolescents (in romantic relationships) have acted violently towards their partners, with a further 4 percent to 11 percent forcing their partners into sexual acts. Studies in the United States indicate that 26 percent to 49 percent of individuals had behaved violently towards their partners, and 3 percent to 12 percent of them had forced their partners into sexual acts (Wubs, et al., 2009).

Gender-based violence is another significant social problem that many communities in South Africa are faced with. In recent years there has been an increasing number of cases of gender-based violence, where there are reports of women being abused, raped, and even killed by men. There were reportedly 42 583 rape cases in South Africa between 1 April 2018 and 31 March 2019; however, this number was suspected to be higher as under-reporting of these assaults is still an issue (Kempen, 2019) because of the stigma and sensitivity of this matter. Reporting of gender-based violence is also believed to be more difficult for women in more conservative, traditional rural households who live in constant fear of having their benefits removed from them, as they are dependent on their husbands (Zondi, 2007). The prevalence of gender-based violence, especially sexual assault, in rural areas has also been linked with the stigma, which is prevalent in such economically disadvantaged areas, where (generally) discussing sex-related matters is considered

taboo. These environments are also believed to lack the capacity to provide a safe environment that would allow young women to discuss sensitive matters related to sex and sexual experiences (Netshikweta, Olaniyi, & Tshitangano, 2018).

Finally, bullying is another common problem that a lot of learners face, particularly within school environments, as studies have identified it as a common and significant concern across the globe (Goldsmid & Howie, 2014). Bullying can be said to occur when an individual is exposed to repeated and prolonged negative actions, intending to harm, on the part of one or more other individuals (Olweus, 1993). A study conducted in the United States indicated that approximately 23 percent of students in public schools are being bullied daily (Okumu, Mengo, Ombayo, & Small, 2017). This study further indicated that there is a relationship between bullying and sexual violence. Another study in South Africa indicated that roughly 17 percent of students in South Africa experience abuse or bullying every week (Ngidi & Moletsane, 2018). It further indicated an association between bullying and both homicide and suicide of either the victims or the perpetrator, in which case the victim may be acting in self-defence or retaliation. Bullying can take different forms such as name-calling and teasing or more severe forms such as threats of violence or completed harmful or violent acts towards other individuals (e.g., physical or sexual assaults). Studies have also indicated that the prevalence of bullying has increased in recent years, especially with the recent technological advancements. This has resulted in a pervasive, problematic phenomenon (affecting over one-third to one-half of the youth) called cyberbullying, which is any form of harassment, humiliation, and threats instigated or perpetrated through the use of technology (Holladay, 2011). Cyberbullying has also been indicated to have a devastating impact on the victims as studies indicate this to be associated with increased levels of instability and hopelessness in adolescents' minds. Furthermore, it has also been indicated to be associated with increased suicide rates among adolescents as studies indicated that victims of cyberbullying are more vulnerable, twice as likely to engage in suicide-related behaviour, compared to those who have not experienced cyberbullying (Holladay, 2011). South Africa also recently (April 2021) witnessed a horrific case of cyberbullying, i.e., the case of Lufuno, a 15-year-old girl, who committed suicide after a video of her being bullied went viral over social media.

From the above discussion, it is evident that violence and crime are serious problems not only globally, but particularly in South Africa. South Africa was previously identified as the country

with one of the most stressful societies in the world, with crime and violence being one of the biggest causes (Esterhuyse, Louw, & Bach, 2007). A study conducted by Peltzer (2003) indicated that South Africa's crime rates were at least twice as high as those in the United States. These high levels of violence in South Africa are believed to be caused by the country's history of apartheid which was characterised by "segregation, discrimination, hatred, and prejudice, which caused much rage and violence in the country" (Ejoke & Ani, 2017, p. 164). The country was characterised by violence during those years, where the state used violence to perpetuate segregation and discrimination against black people. Meanwhile, on the other hand, the liberation movements also used violence in search of their emancipation (Kempen, 2019). This history of apartheid has had devastating effects on the county, which led to the emergence of a culture that is characterised not only by violence, but also by the acceptance of violence as a normal part of life (Mampane, Ebersöhn, Cherrington, & Moen, 2014). This is the kind of environment or community that many adolescents are exposed to and, as a result, are socialised into. As such, they are vulnerable to both being victims of this violent behaviour or becoming socialised into becoming violent individuals.

2.3.2.2 Child-headed homes

One of the common stressors that South African learners encounter, particularly those from rural areas, is having to care for their families from a young age. They are often required to take up a parental role and all the responsibilities that come with this role such as caring for their younger siblings (Geldenhuys, 2016a).. This often occurs in homes where parents have abandoned the children and households in which the parents are terminally ill, or in which the parents are deceased. Child-headed homes are also attributed to the increased rate death rate among adults due to the HIV/AIDS pandemic, high crime levels, violence and poverty (Geldenhuys, 2016a). As a result, the older children in the families are left with the responsibility of caring for their younger siblings or ill parents. Studies have indicated that this causes significant psychological distress as it has been linked with high stress and anxiety levels, overwhelming these individuals to the point that they resort to maladaptive and destructive behaviour as a means of coping with the distress as well as finding ways to bring about financial freedom (Mogotlane et al., 2009). A study by Phillips-Veeze (2011) indicated that such children, who do not have adequate parental care are more vulnerable to abuse and exploitation, such as sexual abuse, thus increasing their vulnerability to further exposure to life adversities (Geldenhuys, 2016a).

2.3.2.3 Accidents

Motor vehicle accidents are also one of the common causes of significant physical injuries, death as well as psychological distress. A study conducted in Mankweng (Limpopo) indicated that 15 percent of the participants (taxi passengers) had been in a serious accident before, which was much higher than those in American communities (Peltzer, 2003). This study supported the finding that South Africa is among the countries with the highest rate of motor vehicle accidents in the world, and with rates of road traffic injuries that are double that of the whole world (Swain et al., 2017). This indicates that there may be multiple adolescents who are exposed to such accidents, which are traumatic by nature, with the potential of causing significant psychological distress to both the survivors as well as their close relatives or significant others.

2.3.2.4 COVID-19

The outbreak of the novel coronavirus disease (i.e., COVID-19) has had devastating effects across the globe. Several studies have indicated that during times of a pandemic, there are often increased risks of psychiatric disorders, including PTSD, anxiety, and depression (Guessoum et al., 2020; Kim & Jung, 2021; Rogers et al., 2020). Because of the rapid spreading of the virus, many countries implemented a hard lockdown, where citizens were obliged to stay home to reduce the risks of the spreading of the virus. Although this was effective to some extent, it also had a negative impact on many individuals, especially adolescents. Staying home has been associated with a greater risk of exposure to multiple traumas such as physical abuse, sexual assaults and psychological abuse (Cénat & Dalexis, 2020). As such, the pandemic has also contributed to a higher likelihood of adolescents being exposed to potentially traumatic events such as being directly affected by the virus to the extent that they become critically ill, or this perhaps happening to their significant others. Furthermore, some may have lost significant people to them as a result of contact with the virus. Although several studies have indicated that the COVID-19 pandemic is associated with a higher prevalence of psychiatric disorders, there remains a gap in understanding the consequences of this pandemic on the psychological well-being of adolescents (Racine, et al., 2020).

2.4 Traumatic Stress

Traumatic stress refers to any penetration of unwanted or intrusive thoughts, emotions or experiences into one's psyche that cause psychological distress following an adverse event (Kaminer & Eagle, 2010). In this study, the term traumatic stress is used to include negative symptoms that an individual experiences following exposure to a traumatic event(s). Such symptoms may or may not be significant enough to warrant a clinical diagnosis in accordance with the DSM-5, in which case it would be referred to as PTSD. Thus, traumatic stress should not be confused with PTSD. Furthermore, traumatic stress should be understood as occurring on a spectrum, with PTSD being the severe end of the spectrum. As such, measuring the effects of traumatic stress should look to go beyond just only focusing on the characteristic symptoms of PTSD. There is a well-established relationship between exposure to traumatic events and the development of PTSS, however, not all traumatic events automatically lead to the development of PTSD (Steyn, 2009). Multiple studies have indicated that while there is a high percentage of the population who report having experienced a traumatic event, only a minority of these individuals develop symptoms that meet the diagnostic criteria for PTSD, while the majority display PTSS (Cascardi et al., 2015). This indicates that focusing only on PTSD, instead of PTSS, has the potential of excluding other individuals with significant symptoms of traumatic stress, but without meeting the full criteria for PTSD.

There are prevalent misconceptions related to the causes of traumatic stress, as most individuals hold the viewpoint that traumatic stress results from being a victim of or being directly involved in a traumatic event. However, a study by Atwoli et al. (2013) indicated that half of the South African PTSS burden is due to the witnessing of traumatic events, and not necessarily due to being a direct victim of these traumatic events.

There are different clusters of post-traumatic stress symptoms (PTSS) which include intrusive symptoms, avoidance symptoms, negative cognitive alterations and alterations in arousal or reactivity (American Psychiatry Association, 2013). Intrusive symptoms can take different forms such as distressing dreams or memories that are related to the traumatic event that the individual experience as unwanted/involuntary. Avoidance symptoms can include individuals engaging in deliberate avoidance of any thoughts, conversations, or external reminders that are related to the traumatic event that they experienced/witnessed (Seedat et al., 2004). They can also include

behaviour such as avoiding the place in which the traumatic event occurred or a place that closely resembles that place. This can be quite disruptive for an adolescent who has experienced a traumatic event such as gang-related violence at school which may cause them to avoid going to school. This is because such stimuli serve as a reminder of the traumatic event that triggers the unpleasant experiences (which are often intolerable) related to that event. Negative cognitive alterations can include things like distorted cognitions, where the individual can have distorted beliefs about the causes of the traumatic event such as the student believing that they are the reason why his friend (whom he argued with earlier) was involved in an accident. These distorted thoughts can lead to self-blame behaviour. Alterations in arousal or reactivity can include symptoms such as someone reacting negatively to sudden unexpected stimuli such as loud noises (American Psychiatry Association, 2013).

In addition to these symptoms, traumatic experiences can also interrupt and negatively affect one's core beliefs (i.e., cognitive schemata) about themselves in a manner that the specific individual experiences distress because the interruption of those core beliefs would pose a challenge to their sense of security (Dutton et al., 1994). This can be evident in an individual who had been exposed to school-related violence, which resulted in the scattering of their assumptive world in three areas. First, this event can cause them to view themselves as fragile and as a result, cause them to become hypersensitive to external stimuli related to the violence (e.g., certain weapons that may have been used during the incident or the perpetrators) to protect themselves. This may result in self-isolating behaviour as an attempt to avoid the perpetrators or potential exposure to further violence. It can also cause distortions in their perception of the world (particularly their school environment), where they may begin to perceive it as a dangerous and unsafe place, thus, causing anxiety and feelings of insecurity. These persistent feelings of insecurity can result in a state of chronic threat which is associated with an increased vulnerability to mental health problems and particularly PTSS (Overstreet & Braun, 2002).

2.5 Post-Traumatic Growth

Research over the past decade has made a shift in focus, from focusing exclusively on the negative consequences of life adversities, to also focusing on the positive side of these events. Attention was diverted to post-traumatic growth (PTG), which refers to the positive psychological changes that individuals experience as a result of highly challenging and stressful events that they have

experienced (Jieling & Xinchun, 2017). PTG can also be defined as “a group of specific positive changes across five domains involving the self, interpersonal relationships, and philosophy of life that occur in response to extremely negative experiences” (Anderson & Lopez-Baez, 2008, p. 215). From the definitions of PTG, it is apparent that a traumatic event is a prerequisite for an individual to experience PTG. However, it is important to note that PTG is not a spontaneous and inevitable process or experience following a traumatic experience but rather results from an individual’s struggling with the aftermath of that traumatic experience. These struggles come as a result of the individual’s attempt to make sense of a traumatic event, more especially because these traumatic events shake and challenge their assumptive world, i.e., the assumptions that each individual has about the self, other, and the world (Walker-Williams et al., 2012). This allows them the opportunity to reintegrate their disintegrated assumptive world, thus propelling the individual to a new level of functioning that is higher than that which existed before the traumatic event. As such, the individual goes beyond their baseline functioning and experiences some improvement and positive growth (Linley & Joseph, 2004).

According to Tedeschi and Calhoun (1996), PTG consists of three broad categories which include changes in how people perceive themselves, changes in their relationships with other people, and changes in their philosophy of life. This was also indicated by a study by Joseph (2015). Below we consider these three broad categories further.

2.5.1 Changes in Self-perception

As mentioned before, one of the negative symptoms of post-traumatic stress is a distorted and erroneous belief related to the cause of the traumatic event which may lead to unjustified self-blame or blaming others. This self-blame can lead to negative changes in the way that an individual perceives themselves and can be manifested in critical statements about the self. This could be manifested in statements such as “I am useless!”, “I am just a failure!” or “I am responsible for all of my misfortunes!” However, on the positive side, individuals can experience positive changes in the way they perceive themselves. This can be indicated by comments such as “I never thought that I could survive that disease. I have learned that I am much stronger than I thought and that I can overcome any situation that is thrown to me as long as I have a positive mindset” (Tedeschi & Calhoun, 1996). Thus, the traumatic events can provide an opportunity for individuals to be able

to identify certain positive traits about themselves that were never apparent under normal circumstances. This can in turn lead to a further appreciation of the self.

2.5.2 Changes in Interpersonal Relationships With Others

Trauma studies have indicated that individuals' relationships can be negatively affected following traumatic experiences, where individuals begin to isolate themselves from other people. This is often because trauma has been shown to negatively impact one's sense of security, thus, impacting their ability to trust others (Crenshaw & Hardy, 2007). Furthermore, "exposure to traumatic events challenges children's sense of security and safety, making the task of re-establishing trust a difficult mission" (Yahav, 2011, p. 104). However, PTG studies have also indicated that individuals experience positive growth in the manner in which they view and begin to appreciate and value their interpersonal relationships. This can be manifested in comments such as "that accident helped me realise that family and friends is what is more important in life! You can lose everything else within a blink of an eye," or "I was very scared when I thought that I would lose my friend after he was involved in the accident. That has made me realise how much I love him." This is an indication of how people's perceptions of their interpersonal relationships with others can be positively affected by realising how important these relationships are, thus leading to a deepening and strengthening of these relationships (Tedeschi & Calhoun, 1996).

2.5.3 Changes in Philosophy of Life

It is common for people who have had traumatic experiences to go on to develop depression which is associated with feelings of hopelessness (Tedeschi & Calhoun, 2004). This can cause people to have a change in perspective, related to the world, or their environment and how they fit into that world or environment. Because of the trauma, they may begin to view the world as an unpredictable, unsafe place, in which excruciating things happen (outside one's control) to people. This can lead to the development or reinforcement of an external locus of control and a sense of loss of control and prevalent feelings of insecurity. However, when traumatic material is dealt with in a positive and adaptive manner, it can lead to positive growth, where individuals begin to view, perceive or think about the world more positively. Studies have also indicated that the struggle that an individual engages in to understand their trauma often leads to a strengthening of their beliefs and spirituality as well as rearrangement of their priorities. This strengthening of beliefs and

spirituality has been linked with an increased sense of intimacy and control which is linked to positive changes in one's philosophy of life (Hamidian et al., 2019; Tedeschi & Calhoun, 1996). Furthermore, a study by Taylor et al. (1984) on cancer patients indicated that 60 percent of the participants reported positive changes in priorities as they took life easier while cherishing each moment that they had.

2.6 The Relationship Between Life Adversities, Traumatic Stress, and Post-traumatic Growth

Exposure to life adversities has been indicated to affect people's general mental health as it results in an elevated vulnerability to psychopathology, including PTSD, anxiety disorders and depressive disorders (McQuaid & Bombay, 2015). Stressful life events have also been associated with higher anxiety sensitivity, which is the "fear of anxiety-related bodily sensations and symptoms that are based on the individual's beliefs, these symptoms and sensations have harmful physical, psychological and/or social consequences" as well as greater drug and alcohol use (Martin et al., 2014, p. 5). Assaultive violence is associated with higher vulnerability for psychiatric outcomes, and this includes PTSD, depression and generalised anxiety, which may be due to the incidence of stressful life events that occur after exposure to trauma (Lowe et al., 2017). A South African study among adolescents indicated that there is a significant positive correlation between the number of traumatic events one experiences and the severity of symptoms of post-traumatic stress (McGowan & Kagee, 2013). This was supported by a study by Suliman et al. (2009) in South Africa which indicated that adolescents who were exposed to multiple traumas were at a higher risk of developing severe symptoms of traumatic stress. This is in line with many studies that have indicated that exposure to multiple traumatic events is associated with a greater risk for psychiatric symptoms (Suliman et al., 2005).

In addition to the abovementioned, extensive research has been conducted on the relationship between life adversities and PTSD (Beal et al., 2019; Chopko et al., 2018; Ward et al., 2001). This link between exposure to traumatic events and the development of PTSD is well-established. However, other studies have indicated that not all traumatic events automatically lead to the development of PTSD (Steyn, 2009). A study by Cascardi et al. (2015) indicated that although many of the participants in that study reported having experienced at least one traumatic event, only 6.8 percent of these individuals displayed symptoms that fit the criteria for PTSD.

Furthermore, a study conducted in South Africa on adolescents indicated that out of all the participants of that study (of exposure to life adversities) 10 percent showed significant symptoms of traumatic stress. However, of this 10 percent, only 6.0 percent of them met the criteria for PTSD (Swain et al., 2017). Other studies in South Africa have also indicated that a few individuals that are exposed to traumatic events develop symptoms that meet the criteria for PTSD (Peltzer, 2003; Seedat et al., 2000; Swain et al., 2017). In conclusion, it seems like there are contradictory findings in research related to the relationship between these phenomena. However, there seems to be a well-established finding that is agreed upon, that there is a positive correlation between exposure to life adversities and post-traumatic stress (Beal et al., 2019; Chopko et al., 2018; El-Khoury et al., 2021; Kalmakis & Chandler, 2015; McGowan & Kagee, 2013; Peltzer, 1999; Ward et al., 2001).

Furthermore, there is evidence that shows that greater post-traumatic stress is associated with higher reports of PTG symptoms. This may be explained by the fact that both PTG and post-traumatic stress have been found to be related to intrusive and avoidant experiences following a traumatic event (Linley & Joseph, 2004). However, unlike PTSD, PTG is related to lower levels of distress, thus lower levels of traumatic stress symptoms (Tedeschi & Calhoun, 2004). This seems to contradict the findings on the relationship between life adversities and traumatic stress, which indicated a positive correlation between these two variables. However, a study by Tedeschi and Calhoun (2004) indicated that there is often a coexistence between post-traumatic stress and PTG. However, the relationship between these two variables is not fully understood (Goral et al., 2020).

2.7 Impact of Economic Disadvantages on Exposure to Life

Studies across the globe have shown that there are high crime and violence rates in socioeconomically disadvantaged communities (Haynie, Silver, & Teasdale, 2006). A South African study conducted in the Western Cape indicated that adolescents from socioeconomically disadvantaged schools were exposed to a greater number of traumatic events than those from socioeconomically advantaged schools (Seedat et al., 2000). This finding was supported by a more recent study among university students (in South Africa) that indicated that individuals from a low socioeconomic status reported more exposure to traumatic events (McGowan & Kagee, 2013). Furthermore, schools in rural areas are also believed to have higher rates of violence, which have

also been associated with the high illiterate rates of parents (Mampane et al., 2014). Other studies have indicated that certain schools, especially in those black residential areas in South Africa, are becoming increasingly unsafe for pupils due to the high crime rates, which are believed to be related to the high unemployment rates and poverty in those socioeconomically disadvantaged areas (Themane & Osher, 2014).

These findings highlighted above are also consistent with those in Limpopo as a study conducted in Sekhukhune District (Limpopo), indicated that the province had the highest prevalence of forced sexual behaviour among adolescents and assault from partners (Shilubane et al., 2014). This was attributed to the fact Limpopo is one of the poorest provinces in South Africa, which is believed to be due to the migration of parents to Gauteng and other provinces in search of work opportunities, leading to a lack of family support. This leaves adolescents vulnerable to adverse life experiences, because of the lack of social support as well as proper parental guidance (Shilubane, et al., 2014). Furthermore, several studies (Docrat et al., 2019; Makwana, 2019; Suliman et al., 2005) indicated that individuals in socioeconomically disadvantaged areas lack the necessary resources, such as access to social services, to assist them in dealing with their traumatic experiences in adaptive. This lack of resources also contributes to the lack of awareness which leads to difficulties in identifying trauma victims (Suliman et al., 2005).

2.8 Exposure to Life Adversities and Traumatic Stress According to Gender Differences

Studies have indicated that there are gender differences in exposure to life adversities, however, the research in this area has also yielded contradictory results. One study conducted in Cape Town (South Africa) and Nairobi (Kenya) among Grade 10 students (2 041 participants) indicated that there is a significant gender difference in the exposure to life adversities, with boys displaying a higher average number of exposures to life adversities than girls (Seedat et al., 2004). However, another study conducted in South Africa indicated the opposite, where girls were found to be exposed to a greater number of life adversities than boys (Seedat et al., 2000), while another indicated that there are no significant differences (McGowan & Kagee, 2013). This is consistent with other studies conducted in South Africa and across the globe.

Studies have also been done on the gender differences in trauma symptoms following adversities. These studies indicated that there are gender differences in PTSS. One study in South Africa

indicated that female students are at a higher risk of developing PTSD than male students. It is argued that this may be because females are at a higher risk of experiencing sexual abuse and assault, which is associated with a stronger correlation with PTSS (McGowan & Kagee, 2013). This finding was consistent with findings from other studies (Peltzer, 2003; Seedat et al., 2000;). However, other studies have found that gender is not related to risk for PTSS (Swain et al., 2017).

2.9 Summary and Gaps in Literature

The review of literature has highlighted the prevalence of life adversities that learners both locally (Limpopo and South Africa) and globally. Over the past few years, increased attention has been given to mental health-related problems as several studies (Ćosić et al., 2020; Kessler et al., 2011) have shown that mental health disorders pose a global burden on the health system. The COVID-19 pandemic has had a devastating effect on humanity across the globe, as it has had both health, social and economic consequences for people. Among the abovementioned consequences, the pandemic has had significant mental health consequences as it has resulted heightened rates of psychological distress such as stress, anxiety and depression. This has resulted in WHO acknowledging and highlighting the “threat for mental health around the globe” (Ćosić et al., 2020, p. 26). With this documented and projected rise in the prevalence of mental health problems, there is a need for more research on these problems. In particular, there appears to be a gap in trauma-related studies in low-income and middle-income countries (Kola et al., 2021; Liese et al., 2019). Limpopo is one such area that has received little attention (in comparison to other areas in South Africa). Furthermore, there seems to also be a need for studies that explore a broader range of traumatic experiences in addition to the studies that focus on one specific kind of trauma (such as violence or natural disasters) as more studies have leaned towards this area as compared to general traumas. This kind of research would be able to cover more of the learners’ experiences. Finally, it also seems that most of the mental health related studies done in Limpopo are focused only on specific communities or districts rather than the wider province. Thus, there is a need for studies that would include participants from multiple districts within the province.

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 Introduction

As seen in the previous chapter, learners are constantly bombarded with a series of events that can take various forms, such that they could either be big or small, significant or insignificant, predictable or unpredictable, pleasant or unpleasant. Among these many kinds of events, individuals can also be exposed to stressful and traumatic events, which can lead to traumatic stress and psychopathology (Joseph & Linley, 2005). These are the negative impacts that individuals can experience as a result of exposure to traumatic events, which have been a major focus both in research and clinical work among psychologists. However, as indicated previously, it has been found that exposure to life adversities can also provide individuals with an opportunity for personal gain and positive psychological changes and growth, i.e., post-traumatic growth (Joseph & Linley, 2005). This chapter focuses on presenting a theoretical framework that aims to explain the two different types of outcomes following a traumatic event, i.e., it aims to explain how an individual can experience distress or growth following a traumatic event. Furthermore, the theoretical framework will also be used (in the discussion chapter) to explain the relationship between life adversities as well as the possible moderating role of PTG in this relationship.

3.2 Importance of Cognitive Schemata in Understanding Trauma Responses

PTG involves three parties: the individual himself, other people, and the world or environment within which the individual exists. These three facets form one's core beliefs which are referred to as cognitive schemata (Splevins et al., 2010). Cognitive schemata are ways in which one forms cognitive representations of the self, others and the world, thus forming their core assumptions of the self, others and the world. These core assumptions affect the way that people behave and interpret other people's behaviour and other events around them (Splevins et al., 2010). These cognitive schemata are also involved in the development of one's sense of self and identity, which according to Erikson's developmental stages occurs during the adolescence years, a period of high vulnerability (Knight, 2017). Cognitive schemata help people function normally in their daily lives, as they also assist in creating mental short-cuts for individuals to minimise decision-making as they are guided by the already-made assumptions and beliefs concerning many things in their lives. As such, people "generally operate based on important assumptions that generally go

unquestioned and unchallenged” (Janoff-Bulman, 1989, p. 114). However, traumatic experiences cause significant interruptions of these assumptions, i.e., they result in an interruption in all three facets that are involved in post-traumatic growth. First, related to the individual himself, there may be changes in how they perceive themselves (i.e., self-perception). Secondly, related to others, there can either be positive or negative changes in how the individual values their relationship with other people. Lastly, related to the world, individuals may change the way they view the world (i.e., life philosophy) (Splevins et al., 2010). Thus, traumatic experiences result in an interruption of individuals’ cognitive schemata. The schemas are challenged and shattered, thus, “creating dissonance between pre-and post-trauma worldviews and causing psychological distress and schematic chaos” (Splevins et al., 2010, p. 261). This leaves individuals with the need to form new post-trauma schemata by which they would be able to function. For an individual to develop these new post-trauma schemata, they need to engage in a process of ruminative activity that is driven by their innate drive to make sense of the traumatic experience to “resolve the dissonance and their assumptive world in a meaningful manner” (Splevins et al., 2010, p. 261). This ruminative activity is automatic and often distressing as the ruminations elicit some of the emotional experiences of the traumatic experience (Joseph & Linley, 2005). There is a need to make sense of the traumatic experiences because these experiences are in themselves raw and confusing to individuals as they are often contrary to their existing schema. Furthermore, these traumatic experiences result in ruminations, thus, leaving individuals with the need to resolve this distress. The process that individuals engage in to make sense of the traumatic experiences facilitates a process of assimilating the trauma information into their existing cognitive schemata.

The outcome of the traumatic event, either negative (i.e., traumatic stress) or positive (i.e., PTG), depends on how an individual reacts to the ruminations that succeed the traumatic event. Below we focus on a particular theory, the organismic valuing process theory of growth through adversity, that will provide a perspective on the relationship between life adversities, traumatic stress, and post-traumatic growth.

3.3 The Theoretical Underpinning of the Organismic Valuing Process Theory of Growth Through Adversity

The relationship between exposure to life adversities, traumatic stress, and post-traumatic growth can be explored using the organismic valuing process theory of growth through adversity. This theory is grounded on other theories that are highlighted below.

3.3.1 Organismic Theory

The organismic valuing process theory of growth through adversity is grounded in the organismic theory, which posits that human beings are active and growth-oriented organisms, which have tendencies toward reproduction, agency, growth and self-regulation (Joseph & Linley, 2005). This is consistent with Rogers's (1959) concept of actualisation, which is part of every individual's intrinsic human drive. The organismic theory proposes that this actualisation is triggered by trauma, thus, growth is understood to be "the natural endpoint of trauma resolution" (Joseph & Linley, 2006, p. 131). In addition, this theory also assumes that each individual has a natural tendency to know what is best for themselves as well as their best direction in life, as they pursue personal well-being and fulfilment. This natural tendency is referred to as the organismic valuing process (Joseph & Linley, 2005). This concept of the organismic valuing process is underpinned by the notion that individuals are "naturally evaluative of their ongoing experiences" (Joseph & Linley, 2005, p. 271). This evaluation can either be an implicit or explicit process in which individuals constantly assess whether certain experiences and actions meet or satisfy certain needs that they have or if they lead to a "nagging sense" that something might be wrong. This "nagging sense" is what triggers the innate drive, in individuals, to engage in actions or behaviour that is aimed at amending the situation so that their experiences would fulfil or satisfy their needs, thus, leading to a more fulfilling life, which is consistent with Rogers's self-actualisation concept (Joseph & Linley, 2005).

3.3.2 Self-Determination Theory

Whether an individual will act in accordance with the organismic valuing process (which mostly results in growth) or not will be affected by the extent to which their social environment facilitates or hinders their innate motivational force towards growth and self-actualisation. Thus, the social environments in which individuals live, play a crucial role in ensuring that they provide the

necessary conditions that meet the individual's fundamental psychological needs. Only when these fundamental psychological needs are met, are individuals able to self-actualise (Joseph & Linley, 2005). The self-determination theory embraces this organismic valuing process and also provides a theoretical understanding of how individuals obtain self-actualisation. This theory proposes that the fundamental or innate psychological needs are autonomy, competence, and relatedness. When satisfied, these needs result in enhanced self-motivation that is necessary for growth. However, when not satisfied, they can lead to diminished motivation that compromises individuals' mental health (Ryan & Deci, 2000). This view is also consistent with the notion of the organismic valuing process that proposes that these fundamental psychological needs must be satisfied for individuals to act concordantly with their organismic valuing process. Thus, whenever these needs are met in one's life, either before or after a traumatic event, they will be better placed to act in accordance with their organismic valuing process (Joseph & Linley, 2005).

3.4 Theoretical Principles of the Organismic Valuing Process Theory of Growth Through Adversity

A search through existing literature has indicated that the organismic valuing process theory of growth through adversity addresses all three of the variables, i.e., life adversities, traumatic stress, and PTG, in this study and also highlights how these variables interact with one another. It does this by addressing four salient theoretical considerations. However, the researcher concluded that the first two salient theoretical considerations are the most relevant to this research study.

3.4.1 Completion Tendency

Firstly, the organismic valuing process theory of growth through adversity addresses the completion tendency. This is the view that individuals have an intrinsic motivation for growth in an attempt to achieve human potential and fulfilment (Splevins et al., 2010). This perspective is based on Rogers's (1964) view that every individual contains growth forces that drive them towards self-actualisation. Exposure to adverse events has a shattering effect on people's assumptive world, that is, the events lead to conflicts between a person's existing models of the world and the experiences of a traumatic event (Joseph & Linley, 2005). Thus, it creates an incongruence and conflict between individuals' existing worldviews or cognitive schemata and trauma-related experiences. This kind of experience also negatively challenges the individuals'

inherent drive for growth and self-actualisation. As a result, people need to integrate these trauma-related experiences and their existing worldviews so that they can reorganise their existing worldviews to positively accommodate the new trauma-related information, which would result in growth (Joseph & Linley, 2005). This process of integrating the trauma-related experiences into one's existing worldviews is a reflection of the individual's need to cognitively and emotionally process the experiences to facilitate growth, with the aim of self-actualisation. This leads to intrusions and avoidance of the trauma-related experiences (i.e., the internal or external cues/stimuli that resemble or are associated with the traumatic event) that are characteristic of PTSD. The intrusions are because the new trauma-related experiences are stored in one's active memory as one attempts to process and make sense of it cognitively. The avoidance on the other hand is due to the notion that the intrusions trigger high levels of distress and arousal that individuals attempt to defend themselves against by employing different avoidance strategies (Joseph & Linley, 2005). This highlights an important notion that several studies have identified, i.e., the processes involved in post-traumatic growth are similar to those involved in post-traumatic stress, especially in the initial stages (Joseph & Linley, 2005). From this perspective, individuals will inevitably go through this period where they experience intrusions and avoidance symptoms.

3.4.2 Accommodation versus Assimilation

The organismic valuing process theory of growth through adversity also differentiates how people resolve their traumatic experiences either through a process of accommodation or by assimilation. These processes are used to explain instances where an individual no longer displays the intrusion and avoidance symptoms as explained previously. It is hypothesised that the resolution of these intrusion and avoidance symptoms is a result of an individual's efforts to either cognitively assimilate the traumatic memory or revise existing pre-trauma schemata to accommodate the new post-trauma information (Joseph & Linley, 2005).

Accommodation refers to people's attempts to revise existing schemata to accommodate trauma-related information. This is the natural response of many individuals following a traumatic experience. However, as mentioned previously, this process requires a supportive environment, one that would satisfy the individual's psychological needs (i.e., needs for autonomy, competence, and relatedness). The satisfaction of these needs, before the trauma, serves as a factor in resilience. Furthermore, it also serves to facilitate the organismic valuing process when the needs are satisfied

following the trauma. This organismic valuing process is related to positive growth (i.e., positive accommodation of the traumatic material). However, failure to meet these needs operates as a factor of vulnerability and leads to a lower possibility of facilitating the organismic valuing theory. This is linked with a higher likelihood of negative accommodation (Joseph & Linley, 2005). There are other individuals, however, who do not engage with the content and significance of the traumatic event, and as a result, attempt to retain their pre-trauma schemata, this is known as assimilation (Joseph & Linley, 2005). The individual or their assumptive world in this state is left fragile and vulnerable to future fragmentation and probable subsequent traumatising because of future exposure to traumatic events (Joseph & Linley, 2005).

3.4.3 Meaning as Comprehensibility versus Meaning as Significance

As indicated previously, individuals always seek to retrospectively make sense of traumatic experiences. When individuals achieve meaning comprehensively, they either assimilate or accommodate the trauma information. However, individuals can also achieve this by searching for meaning as “significance”. This occurs when the individuals are open to engaging the existential issues that are raised by the event (Yalom & Lieberman, 1991). This means that the individuals begin to consider the implications of the event for how they live their lives as well as for their worldviews and life philosophy. This further requires that the individual accommodates the trauma material in an attempt to fully integrate it into their existing assumptive world (Joseph & Linley, 2005). This process occurs whenever the organismic valuing process is given voice (Yalom & Lieberman, 1991).

3.4.4 Eudaimonic versus Hedonic Wellbeing

This principle emphasises the view that post-traumatic growth is not equivalent to “happiness” but rather, that it is normal for individuals to be in significant distress following traumatic experiences. Furthermore, it emphasises the view that although an individual may experience positive accommodation of a traumatic experience and develop the meaning of the event as significance, as indicated above, they may well still be distressed and at times depressed for a brief time following the event (Joseph & Linley, 2005). However, these individuals may become wiser and have their internal resilience strengthened (Linley, 2003). As such, post-traumatic growth does not necessarily refer to subjective wellbeing but rather to psychological wellbeing, which is associated

with high levels of environmental mastery, autonomy, self-acceptance, openness to personal growth and positive interpersonal relationships (Joseph & Linley, 2008).

3.5 Conclusion

Individuals can be exposed to traumatic events that can have a shattering effect on their dreams, expectations and assumptions as well as bring them to question the meaning of their lives. The organismic valuing process theory of growth through adversity can be used to explain the relationship between the three variables (i.e., life adversities, traumatic stress and post-traumatic growth) in this study. It aims to explain the process that individuals engage in following a traumatic event, in search of bringing harmony as well as rebuilding and re-integrating their disintegrated assumptive world (Davis & Wohl, 2007). They would inevitably engage in a process of both intrusion and avoidance of the trauma-related experiences. This state is resolved by their engagement in either a process of accommodation or assimilation. However, for a positive outcome, there is a need for the proper environment that would facilitate this process. This is an environment in which individuals' fundamental psychological needs for autonomy, competence, and relatedness are satisfied (Joseph & Linley, 2005). Thus, it could be summarised that from this theoretical framework (for growth to occur, following a traumatic event), individuals must "process and reconcile" the meaning of that specific event and find ways of making sense of the meaning of that specific event in their lives (Davis & Wohl, 2007, p. 695). In addition, there is also a need for the individuals to make meaning of the event as "significance" by engaging with the existential issues raised by the event. This manner of engaging with trauma material may result in post-traumatic growth, which is not equivalent to happiness but rather psychological well-being.

CHAPTER 4: RESEARCH METHODOLOGY

This chapter focuses on discussing the research methodology that this study used.

4.1 Research Design

This study used a quantitative approach, with a correlational design. This enabled the researcher to explore the relationship between the variables in this study. Life adversities in this study is the independent variable, while traumatic stress and PTG are the dependent variables.

4.2 Participants

This study consists of high school learners (both male and female between the ages of 13 and 21 years) from rural schools, across two districts, in Limpopo Province. The reason for choosing rural schools in Limpopo is that previous researchers (Hatcher et al., 2019; Haynie et al., 2006; McGowan & Kagee, 2013; Romero et al., 2018; Seedat et al., 2000) have indicated that individuals from socioeconomically disadvantaged backgrounds are at a higher risk of exposure to life adversities. As such, these studies seem to suggest that the individuals that suffer the most from traumatic stress are those who are from economically disadvantaged backgrounds, and are, thus, less likely to receive the necessary assistance due to lack of resources. This lack of resources also contributes to the lack of awareness which leads to the difficulty of identifying any victims who may be traumatised (Suliman et al., 2005). The participants were gathered using a random sampling method from the identified schools. The researcher decided on a sample size of 300 because other correlational studies (Chopko & Palmieri, 2018, Goral et al., 2020, Wang et al., 2015) investigating similar variables have used a similar or lower number of participants. These studies have also indicated that this sample size provides an accurate and reliable correlation of these variables.

This study consisted of a total of 300 high school learners that comprised of male (108, 36.0%) and female (192, 64.0%) participants. The mean age of the participants was 16.63 years (SD = 1.74) and ranged from 13 to 21 years of age. The data for the study were collected from six schools in South Africa: Batau High School (48, 16.0%), Malengine Secondary School (44, 14.7%), Morutwa High School (39, 13.0%), Mmiditsi High School (50, 16.7%), Mankoen High School (48, 16.0%), and Mogolo Secondary School (71, 23.7%). In terms of home situation, about

5 (1.7%) of the participants reported staying alone, 117 (39.0%) reported living with their mothers, 11 (3.7%) reported living with their fathers, 11 (3.7%) reported living with their grandmothers, 01 (0.3%) reported living with their grandfathers, 01 (0.3%) reported living with both their grandmothers and grandfathers, approximately 07 (2.3%) were from child-headed households, 06 (2.0%) reported staying with the extended family, the majority 134 (44.7%) reported living with both their parents, and 07 (2.3%) reported staying with aunties. According to the results, 13 (4.3%) of the participants were in Grade 8, 46 (15.3%) were in Grade 9, 38 (12.7%) were in Grade 10, 138 (46.0%) were in Grade 11, and 65 (21.7%) were in Grade 12. Regarding their race, the majority of the participants 297 (99.0%) were Africans, 01(0.3%) were coloured, and 02 (0.7%) were whites.

4.3 Measure for Data Collection

The study made use of a biographical questionnaire that was developed by the researcher to include information of particular interest to this research study. It also included existing self-report questionnaires that were able to quantify the students' experiences of the three variables that this study is aimed at exploring. The questionnaire comprised of four sections (Appendix L):

4.3.1 Biographic Questionnaire

The first section of the questionnaire was a biographic questionnaire that was used to profile the participants. The questions contained in this questionnaire pertain to relevant biographical information about the participants, namely, age, grade, gender, race, their home situation (whom they lived with) as well as the name and location of their school.

4.3.2 Trauma History Questionnaire

The second section of the questionnaire focused on exploring the life adversities variable. This was done using the Trauma History Questionnaire (THQ) (Stockton et al., 2011). The THQ has shown to be a valid self-report measure developed to collect information about potentially traumatic events that individuals may have been exposed to (Stockton et al, 2011). The THQ consists of 24 items assessing participants on events in three categories: crime-related events, general disaster and trauma, and unwanted physical and sexual experiences (see Section B of Appendix L for examples of items). Its test-retest reliability has shown to be moderate to high,

with correlation coefficients that ranged from .54 to .94 (McKenna et al., 2019). This measure has been used in multiple studies in South Africa, this includes studies by van der Westhuizen et al. (2017) and Peltzer et al. (2007). The THQ has shown to be valid in South Africa wherein Peltzer et al. (2007) indicated a Cronbach's alpha of .72. Furthermore, some studies have used this measure among adolescents, indicating that it is a suitable measure for this age group (Zhang et al., 2019). The Cronbach's alpha of this measure in this study was .77.

4.3.3 Child Trauma Screening Questionnaire

The third section of the questionnaire was focused on exploring the traumatic stress variable. The Child Trauma Screening Questionnaire (CTSQ) was used to assess potential trauma symptoms in the participants (Kenardy et al., 2006). This is a 10-item questionnaire that is subdivided into two categories: re-experiencing (5 items) and hyper-arousal symptoms (5 items) (see Section C of Appendix L for example of items). The CTSQ was adapted by Kenardy et al. (2006) from the Trauma Screening Questionnaire (TSQ) developed by Brewin et al. (2002), by rewording the questions to be more comprehensible for children. The TSQ proved to have good reliability and validity in assessing post-traumatic stress symptoms among adults (Alenko, et al., 2019). The CTSQ was also used in several studies in Africa, including a study by Alenko et al. (2019) and Upkong et al. (2007). This measure has proven to be a reliable measure for assessing trauma symptoms. It showed an internal consistency of $\alpha = .69$ and item-total correlation for all 10 items that ranged from .14 to .50 (Kenardy et al., 2006). The Cronbach's alpha of this measure in this study was .86. By the time the CTSQ was used in this study, it had been used in other African countries. One of the recent studies conducted was in Namibia (Taukeni et al., 2016); however, the researcher was unable to identify any studies conducted using this tool in the South African context. The participants of this study by Taukeni et al. (2016) ranged in age from 8 to 18 years, indicating that this measure is suitable to use for the age group of this study.

4.3.4 Post-Traumatic Growth Inventory

The fourth section of the questionnaire was focused on exploring the PTG variable. For this, the Post-traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) was used to measure the positive psychological changes that result from highly stressful life events. The PTGI is a 21-item inventory with a 6-point Likert scale (see Section D of Appendix L for example of items). This

measure explores factors that can be divided into four categories that include “new possibilities, relating to others, personal strength, spiritual change appreciation of others” (Tedeschi & Calhoun, 1996, p. 455). The internal consistency reliability of the PTGI in one of the studies conducted by Anderson and Lopez-Baez (2008) showed a coefficient of .91, which shows that this inventory is reliable. A study conducted in South Africa by Walker-Williams et al. (2012) also showed good reliability, indicating a Cronbach alpha of .95 for the total scale. The Cronbach’s alpha of this measure in this study was .93.

The PTGI has also been used in studies that included learner population. Certain studies used the original PTGI without any adaptations, this includes a study by Husson et al. (2017), while other studies have adapted the PTGI into a language that was understandable by the participants, such as a study by Levine et al. (2008), who used the version translated in the Hebrew language. Furthermore, Zebrack et al. (2015) used this measure on an adolescent population. In this study, the original PTGI was used, without any further adaptations. This supports the suitability of the use of this measure among the age group used in this study.

4.4 Procedure for Data Collection

The researcher first obtained consent from the Limpopo Department of Education to carry out this research study (Appendix A). Thereafter, the researcher obtained consent from the Ethics Committee of the University of Pretoria, Humanities Faculty (Appendix B). After the consent was received from these two parties, the researcher was able to approach the gatekeepers of each of the schools to seek informed consent for the study to be conducted in the respective schools (Appendix E–J). This was mostly done via email and phone call correspondence between the researcher and the various gatekeepers. In identifying the schools, the researcher (as indicated previously) made use of convenience sampling but also attempted to select schools in different rural areas in different municipalities and districts within Limpopo Province, to get a more representative sample.

After the gatekeepers had provided consent, the researcher went to the different schools to collect the data. The data collection process took two days at each school. On the first day, the researcher provided informed consent from the participants. The researcher also identified certain teachers (with assistance from the gatekeepers) to assist with the administration process. The researcher provided these teachers with the necessary information related to the purpose and nature of the

research. The role of these teachers was to assist the researcher in providing the learners as well as their parents with further explanations, in a simpler and more relatable language, whenever the need arose. Furthermore, learners were informed about the purpose of the study. Thereafter, the interested learners were identified and grouped. The researcher then randomly selected a certain number of students from the sample to participate in the study.

Following the selection of the participants, they were given further information about the research, which included a thorough explanation of the informed consent form. They were then given informed consent forms (which included detailed information about the study) as well as assent forms for their parents to fill in (Appendix C). Underage participants were given assent forms (Appendix D) to take home in order to engage with their parents to give consent, while the children themselves provided assent. The teachers also formed a part of this process as they assisted in explaining the purpose of the study as well as the entire procedure to the learners in a manner that ensured that they had a proper understanding of the purpose of the study as well as what was expected of them. However, important to note is that the participants of this study had a good command and understanding of the English language. The research was also present during the administration period to ensure that the participants understood the questions. They were given the opportunity to ask questions. Furthermore, the researcher also provided further elaboration on certain concepts assessed in the questionnaire that may have been difficult to understand.

The participants were required to return the fully completed consent or assent forms before they could participate in the research, i.e., to complete the questionnaire. The second day was dedicated to completing the questionnaires. Only five participants did not return the consent forms in the first three schools, while the participants from the rest of the schools all returned with the completed consent forms. The learners who returned their completed consent/assent forms were gathered in classes, big enough to ensure that COVID-19, social distancing regulations were adhered to. The questionnaire was administered by the researcher with the assistance of the teachers. Before the administration of the questionnaire, the researcher reiterated the nature and goal of the questionnaires, while also allowing the opportunity for participants to ask questions. Emphasis was also placed on the sensitivity of certain questions and participants were exhorted to respect one another's privacy by focusing only on their own responses and to avoid looking at each other's. Furthermore, the researcher reminded participants that they could withdraw from the

process at any given time and that this would not be held against them. Thereafter, the researcher provided instructions and remained in the venue to answer any questions and provide clarity on certain questions.

Data collection on the second day took place at different times at the different schools, depending on the students' availability. The goal was to ensure that the data collection process did not interfere with the learners' academic activities. The data collection process in three of the schools took place early in the morning before school began. Thus, these students did not miss any classes or school-related activities. At the remaining schools, data was collected during class time, during their Life Orientation lessons. The teachers helped with separating the learners to ensure that only the participants remained in certain classrooms, while the other learners were moved to other classrooms for the duration of the data collection process. The duration of the process varied between schools but on average was approximately 60 minutes.

Upon completion of the questionnaires, the researcher collected the questionnaires from the participants, provided the participants with a group debrief and provided them with information of a contact person (Appendix K), who would provide further individual debriefing or brief counselling, in the case the need arose.

4.5 Data Analysis

Data was entered into a Statistical Program for Social Sciences version 21 (SPSS 21) system (Davis, 2014). First, descriptive analyses were done to map out the demographic data of participants. Secondly, the frequency with which participants reported a range of life adversities, traumatic stress, and post-traumatic growth experiences according to gender was calculated. Thirdly, correlations were done to assess the relationships between variables. This was done by calculating Pearson correlation coefficients, which have been used in other studies exploring the relationship between post-traumatic stress symptoms and PTG (Liu et al., 2017). Furthermore, a regression analysis was done to explore the moderating effect of PTG in the relationship between life adversities and traumatic stress (see Table 6 in chapter 5). Thirdly, graphical presentations, as well as tables, were used to further illustrate the analysis.

4.6 Ethical Considerations

There were several ethical guidelines the researcher considered and upheld throughout the research project. These include the following:

Beneficence: This principle served as a guide to assist the researcher with ensuring that the research study aims to benefit the participants of the study. Furthermore, this principle emphasises the need to ensure that the work of the researcher would aim to improve the condition of the participants as well as the societies from which they come (Fisher, 2003). This research provided the opportunity to explore the prevalence of exposure to life adversities and traumatic stress among adolescents, in rural areas, where not much research has been done before. Thus, the study has the potential of raising awareness of mental health, which may serve to assist individuals who are victims of certain adverse events as well as those who are in psychological distress as a result of those adverse events.

Upon completion of the questionnaire, participants were provided with a debriefing to normalise certain feelings that may have been elicited by the nature of certain questions.

Informed consent: This ethical consideration assisted the researcher to ensure that they respect the participants' right to autonomy and their "basic right of self-determination" as well as "freedom of choice" (Herr et al., 1983, p. 23). Participants in this study were thoroughly informed about the nature and goal of the study and were also supplied with informed consent or assent forms before their participation. Only those participants who returned with the informed consent or assent forms participated in the research.

Participant anonymity and data confidentiality: The principle of anonymity was upheld in this study to ensure that the privacy of the participants was respected through the protection of their identities. This has also proven to protect participants from possible stigmatisation as well as encourage participants to freely express their views and experiences (Dube et al., 2014). Thus, participants were not required to provide their names on the questionnaires. Upon completion of the study, the raw data was kept by the researcher in a secure place for safekeeping during the data analysis process.

Ethical clearance: Before the data collection process, ethical clearance was obtained from the University of Pretoria, Humanities Ethics Department as well as from the Department of Education. Furthermore, written consent was also obtained from the gatekeepers of each of the schools in which the data was collected.

Research dissemination: Findings from this study have been made available to the schools where the sample was collected as well as to the Department of Education.

CHAPTER 5: RESULTS

This chapter presents the results of the analysed data. Descriptive and inferential statistics were carried out to analyse the data in the research study. The data is presented in both table and diagram form. The results are presented with the focus of answering the specific research questions of this study.

5.1 Prevalence of Life Adversities

This section presents the results that explore the research question: What is the participants' prevalence of exposure to life adversities and traumatic stress?

Table 1: Presentation of the overall prevalence and means of life adversities (N = 300).

Measure	N (percent)	Average Exposure	Mode
Life Adversities (Frequency)	210 (70)	4.03	0
Life Adversities (Type)	210 (70)	3.06	0

Considering the prevalence of exposure to life adversities, 70 percent (i.e., $n = 210$) of the participants reported having been exposed (both frequency and types) to at least one life adversity in their lives. There was an exposure (frequency) mean of 4.03, which indicates that each participant was exposed to at least four life adversities in their lifetime. Furthermore, there was an exposure (type) mean of 3.06 among all the participants, which indicates that each participant was exposed to at least three of the 24 different life adversities.

Table 2: Distribution of life adversities and traumatic stress scores among study participants (N = 300)

Measure	Low	High
	N (percent)	N (percent)
Life Adversities (Frequency)	170 (56.7)	130 (43.3)
Life Adversities (Type)	180 (60.0)	120 (40.0)

About 170 (56.7%) of the participants in this study reported low scores for life adversities (Frequency), while 130 (43.3%) had high scores for life adversities (Frequency). For life adversities (Type), about 180 (60.0%) participants reported low scores, and 120 (40.0%) reported high scores. Figure 1 presents a breakdown of the different types of life adversities that were

measured using THQ. The THQ consists of three sections that focus on specific clusters of traumatic experiences. These include (1) crime (2) general disaster/trauma and (3) sexual and physical assault experiences (Green, 1996). Thus, the statistics below display the prevalence of the specific trauma clusters.

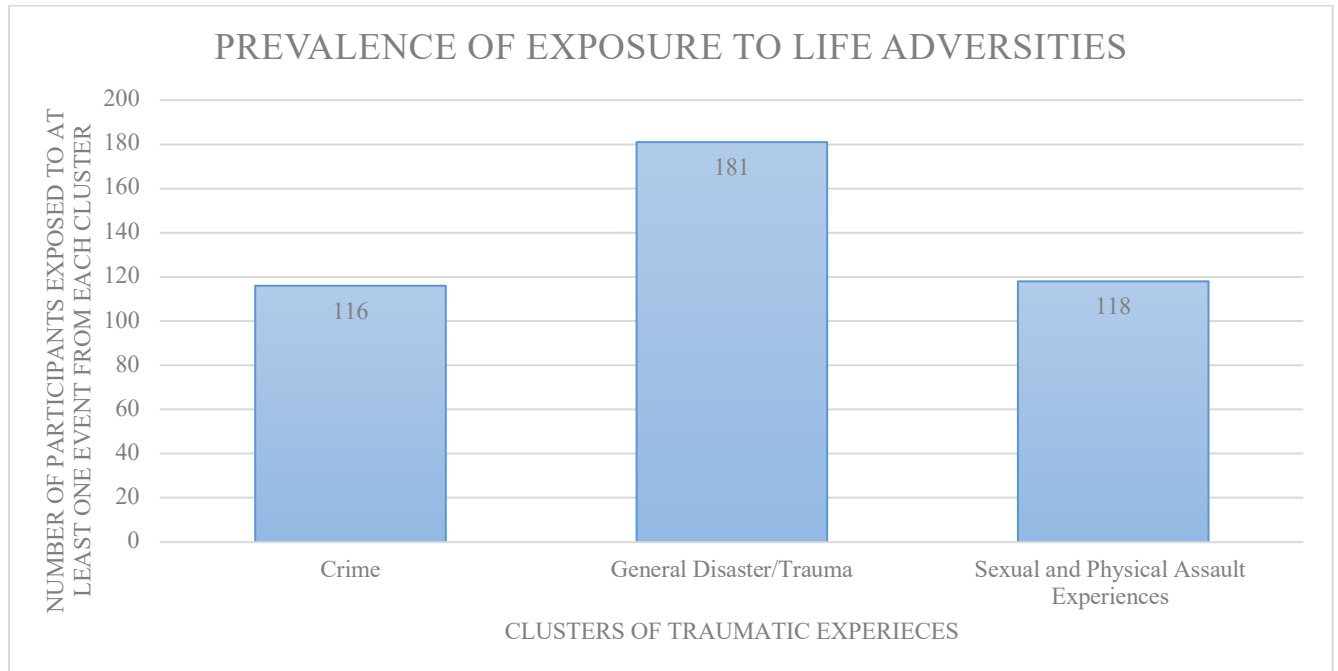


Figure 1: A graphic representation of the prevalence of life adversities based on the three different clusters

5.1.1 Crime

The first category consists of four questions that are focused on crime-related traumatic experiences. Within this category, there was a total of 116 (38.67%) participants who reported having been exposed to at least one of the four traumatic events in this category.

5.1.2 General Disasters/Trauma

This category consists of thirteen questions that are focused on traumatic experiences that are related to different types of general disasters. Within this category, there was a total of 181 (60.33%) participants who reported having been exposed to at least one of the thirteen traumatic experiences.

5.1.3 Sexual and Physical Assault Experiences

This category consists of seven different types of traumatic experiences that are focused on sexual-related traumas as well as physical assaults. There was a total of 118 (39.33%) participants who reported to have been exposed to at least one traumatic event in this category. The mean exposure score was 0.81, while the mean frequency score was 1.09. The most prevalent traumatic event in this category was related to sexual assault, in which another individual (perpetrator) forcefully touched their private parts or where the perpetrator forced the individual to touch their (the perpetrator's) private parts. This was reported by 49 (16.33%) of the participants, of which 38 were female. Thus, 38 (19.79%) of the female participants reported having been sexually assaulted in their lives.

5.2 Traumatic Stress

This section presents the results that explores the question: What is the participants' prevalence of exposure to life adversities and traumatic stress?

Table 3: Presentation of the overall prevalence and means of life adversities (N = 300).

Measure	N (percent)	Average Symptoms
Traumatic stress	223 (74.33)	3.13
CTSQ score \geq 5	94 (31.3)	N/A

Considering traumatic stress, 74.33% of the participants reported having been experiencing at least one of the posttraumatic stress symptoms on the CTSQ. The range on this scale was 1 – 10, with a mean score of 3.13, indicating that on average, the participants exhibited at least three symptoms of trauma. Furthermore, 31.3% (i.e., 94) of the participants reported having experienced at least 5 of the posttraumatic stress symptoms, with an additional 10 participants reporting all the symptoms on the CTSQ.

Table 4: Distribution of traumatic stress scores among study Participants (N = 300).

Measure	Low	High
	N (percent)	N (percent)
Traumatic stress	169(56.3)	131(43.7)

In addition to the statistics presented in Table 3, Table 4 provides an indication of the prevalence of traumatic stress in terms of severity (high or low) of the symptoms per each participant. This table indicates that 169 (56.3%) participants reported low scores on traumatic stress, while 131 (43.7%) reported high traumatic stress.

5.3 The Relationship Between to Life Adversities, Traumatic Stress and Posttraumatic Growth in Learners

This section presents the results that responds to the research question: What is the relationship between exposure to life adversities and traumatic stress in learners?

Table 5: Correlations matrix and descriptive statistics for key study variables

Variables	M (SD)	1	2	3	4	5	6	7	8	9	10
1. TS	3.13 (3.07)		.51**	.52**	.26**	.27**	.47**	.44**	.31**	.34**	.15**
2. LA(F)	3.05 (3.51)			.92**	.66**	.57**	.87**	.85**	.66**	.54**	-.00
3. LA(T)	4.03 (4.88)				.53**	.65**	.81**	.82**	.70**	.68**	-.01
4. PSE(F)	0.50 (1.20)					.53**	.37**	.49**	.25**	.17**	-.09
5. PSE(T)	0.59 (1.47)						.36**	.33**	.41**	.28**	-.13
6. GDTE(F)	1.64 (1.95)							.92**	.45**	.38**	.09
7. GDTE(T)	2.00 (2.58)								.42**	.37**	.07**
8. CRE(F)	0.61 (0.94)									.82**	-.02
9. CRE(T)	0.93 (1.69)										.04
10. PTG	55.73 (27.72)										

Key: TS = Traumatic stress, LA(F) = Life Adversities(Frequency), LA(T) = Life Adversities(Type), PSE(F) = Physical and Sexual Experiences (Frequency), PSE(T) = Physical and Sexual Experiences (Type), GDTE(F) = General Disaster and Traumatic Experiences(Frequency), GDTE(T) = General Disaster and Traumatic Experiences (Type), CRE(F) = Crime Related Events(Frequency), CRE(T) = Crime Related Events (Type), PTG = Post-traumatic growth

** Correlations is significant at the 0.01 level (2-tailed)

* Correlations is significant at the 0.05 level (2-tailed)

The results show that traumatic stress was positively and significantly related to life adversities [Frequency] ($r = 0.51$; $p < .001$) and life adversities [Type] ($r = .52$; $p < .001$) in general. A further analysis was done that specifically explored the life adversities based on their categories. The results show that traumatic stress was positively and significantly related to physical and sexual experiences [Frequency] ($r = .26$; $p < .001$); physical and sexual experiences [Type] ($r = .27$; $p < .001$); general disaster and traumatic experiences [Frequency] ($r = .47$; $p < .001$); general disaster

and traumatic experiences [Type] ($r = .44$; $p < .001$); crime related events [Frequency] ($r = .31$; $p < .001$); crime related events [Type] ($r = .34$; $p < .001$). Furthermore, post-traumatic growth ($r = .15$; $p = .010$) was negatively and significantly related to adverse childhood experiences. Thus, the results show that majority of the different types of life adversities are positively correlated to traumatic stress. In contrast, post-traumatic growth is not significantly related to both life adversities [Frequency] ($r = -0.00$; $p = .946$) and life adversities [Type] ($r = -.01$; $p = .887$). Other correlational results are reported in Table 2. Finally, the results also indicate that traumatic stress is positively and significantly related to PTG.

5.4 The Role of Post-traumatic Growth Play in the Relationship Between the Frequency of Life Adversities and Traumatic Stress Among Learners.

This section presents the results that explore the question: What role does post-traumatic growth play in the relationship between the frequency of life adversities and traumatic stress among learners?

Table 6: Regression analyses for moderation effect of post-traumatic growth in the relationship between life adversities (frequency) and traumatic stress

Model	Unstandardised Coefficients		Unstandardised Coefficients		
	B	SE	β	t	P
Step 1					
Constant	0.819	0.365		2.244	.026
LA (F)	0.449	0.043	0.512	10.404	.000
PTG	0.017	0.005	0.152	3.090	.002
Fit for model $R = .534$, $R^2 = 0.280$, Adjusted $R^2 = 0.285$, $\Delta R^2 = 0.285$, $F(2, 295) = 58.771$, $p < .001$, $\Delta F = 58.771$, $p < .001$.					
Step 2					
LA(F) X PTG	0.003	0.001	0.171	1.745	0.082
Fit for model $R = .541$, $R^2 = 0.292$, Adjusted $R^2 = 0.285$, $\Delta R^2 = 0.007$, $F(1, 294) = 40.468$, $p < .001$, $\Delta F = 3.047$, $p < .082$.					

Key: LA(F) = Life Adversities(Frequency), PTG = Post-traumatic growth

The result of the regression analysis showed that life adversities [Frequency] ($\beta = 0.512$, $t = 10.404$, $p < 0.000$) have a significant influence on traumatic stress of learners. This implies that life adversities (Frequency) have a positive significant and direct influence on traumatic stress. Stated differently, adolescents who reported more life adversities (Frequency) are likely to report more traumatic stress. With a regression coefficient of ($\beta = 0.152$, $t = 3.090$, $p = 0.002$), post-traumatic growth has a significant influence on traumatic stress of learners, meaning that post-traumatic

growth has a positive significant and direct influence on traumatic stress of learners. This indicated that learners who reported more post-traumatic growth are reporting more traumatic stress. The interaction between life adversities (Frequency) and post-traumatic growth ($\beta = 0.171$, $t = 1.745$, $p = 0.082$) was not significant, suggesting that post-traumatic growth did not moderate the relationship between life adversities (Frequency) and traumatic stress of learners.

5.5 The Role of Post-traumatic Growth Play in the Relationship Between the Types of Life Adversities and Traumatic Stress Among Learners.

This section presents the results that explore the question: What is the role that post-traumatic growth play in this relationship between the type of life adversities and traumatic stress among learners?

Table 7: Regression analyses for the moderation effect of post-traumatic growth in the relationship between life adversities (type) and traumatic stress

Model	Unstandardised Coefficients		Unstandardised Coefficients		
	B	SE	β	t	P
Step 1					
Constant	0.847	0.359		2.361	.019
LA (T)	0.331	0.031	0.526	10.800	.000
PTG	0.017	0.005	0.154	3.157	.002
Fit for model $R = .547$, $R^2 = 0.299$, Adjusted $R^2 = 0.294$, $\Delta R^2 = 0.299$, $F(2, 296) = 63.030$, $p < .001$, $\Delta F = 63.030$, $p < .001$.					
Step 2					
LA(T) X PTG	0.001	0.001	0.088	0.892	0.373
Fit for model $R = .548$, $R^2 = 0.301$, Adjusted $R^2 = 0.293$, $\Delta R^2 = 0.002$, $F(1, 295) = 42.256$, $p < .001$, $\Delta F = 0.795$, $p > .373$.					

Key: LA(T) = Life Adversities(Type), PTG = Post-traumatic growth

The result of the regression analysis showed that life adversities [type] ($\beta = 0.526$, $t = 10.800$, $p < 0.001$) has significant influence on traumatic stress of learners. This implies that life adversities (type) have a positive significant and direct influence on traumatic stress. In other words, learners who reported more life adversities (Type) are likely to report more traumatic stress. With a regression coefficient of ($\beta = 0.154$, $t = 3.157$, $p = 0.002$), post-traumatic growth has a significant influence on traumatic stress in learners, meaning that post-traumatic growth has a positive significant and direct influence on traumatic stress. This suggested that learners who reported more post-traumatic growth reported more traumatic stress. The interaction between life adversities (Type) and post-traumatic growth ($\beta = 0.088$, $t = 0.892$, $p = 0.373$) was not significant. This means

that post-traumatic growth did not moderate the relationship between life adversities (type) and traumatic stress.

5.6 Life Adversities, Traumatic Stress and Post-traumatic Growth According to Gender Difference

This section presents the results that explore the question: What are the dynamics of life adversities, traumatic stress, and post-traumatic growth according to gender differences?

Table 8: Gender differences in traumatic stress, post-traumatic growth and life adversities

Dependent Variable	Female (n = 164)		Male (n = 101)		t	Df	P
	Mean	SD	Mean	SD			
Traumatic stress	1.49	0.50	1.28	0.45	3.550	263	0.001
Post-traumatic growth	Female (n = 163)		Male (n = 93)		-1.431	254	0.154
	1.64	0.48	1.73	0.05			
Life Adversities Frequency	Female (n = 175)		Male (n = 101)		0.458	274	0.647
	1.39	0.49	1.37	0.48			
Life Adversities Type	Female (n = 178)		Male (n = 101)		-0.042	277	0.967
	1.35	0.48	1.37	0.48			

The results from Table 7 show there was a significant difference in traumatic stress ($t = 3.550$; $df = 263$; $p < 0.001$) between male and female participants. The result can be observed in the means, where female participants (Mean = 1.49, SD = 0.50) reported significantly higher traumatic stress compared to male participants (Mean = 1.28, SD = 0.45). Results also indicated a significant difference in post-traumatic growth ($t = -1.431$; $df = 264$; $p = 0.154$) between male and female participants. The result can be observed in the means, where male participants (Mean = 1.73, SD = 0.05) reported significantly better post-traumatic growth compared to female participants (Mean = 1.64, SD = 0.48). In contrast, the results show no significant difference in life adversities [Frequency] ($t = 0.458$, $df = 274$; $p = 0.647$) between male and female participants. The mean differences revealed that female (Mean = 1.39, SD = 0.49) and male (Mean = 1.37, SD = 0.48) participants were not significantly different in life adversities [Frequency]. This suggests that gender did not influence life adversities [Frequency]. In similar vein, there was no significant difference in life adversities [Type] ($t = -0.042$, $df = 277$; $p = 0.967$) between male and female participants. The mean differences revealed that female (Mean = 1.35, SD = 0.48) and male (Mean = 1.37, SD = 0.48) participants were not significantly different in life adversities [Type]. This suggests that gender did not influence life adversities [Type].

CHAPTER 6: DISCUSSION

This study explored the relationship between life adversities, traumatic stress, and post-traumatic growth among high school learners in Limpopo Province. Furthermore, this study explored the prevalence of both life adversities and traumatic stress among learners. Finally, the study explored the differences between the two genders in these three variables. This chapter focuses on discussions of the findings of the study. These discussions draw from both the results and the literature review and theoretical framework.

6.1 Prevalence of Life Adversities

In this study, nearly three-quarters (i.e., 70 percent) of the participants reported having been exposed to at least one adverse event in their lifetime. This is consistent with a study (which indicated a higher rate than those in this study) conducted in the United States by Burke et al., (2011) which indicated that two out of three children had been exposed to at least one life adversity in their lifetime. Furthermore, this was also consistent with a South African study by Topper et al. (2015) which indicated that 73.8 percent of the participants in the study had been exposed to at least one potentially traumatic event. Furthermore, this study's results indicated a mean frequency of exposure of 4.03 traumatic events, which indicates that the average exposure of traumatic events per individual was at least four events. This is consistent with a study conducted in the Western Cape by Suliman et al. (2005) which indicated a mean score of 3.5 traumatic experiences.

As indicated in the literature review, South Africa is one of the countries with high crime rates globally (Esterhuysen et al., 2007; Kempen, 2019; Peltzer, 2003). This study has indicated that at least a third of the participants (i.e., 38.67 percent) have been exposed to one or more crime-related traumatic experiences. These findings highlight the seriousness of crime-related problems both in South Africa and specifically in Limpopo. Thus, many adolescents may be living in constant fear, which may be indicated by hypervigilance as an aftermath of these traumatic experiences. As indicated in the questionnaire, these crime-related traumas are not only prevalent in the streets but also in the homes where the individuals are meant to feel safe and secure. Furthermore, 29.33 percent of the participants reported having seen someone violently injured or killed by other individuals, of which some of the cases are due to community violence, which was indicated to be prevalent in South Africa (Suliman et al., 2005).

The findings of this study indicated that 39.33 percent of the participants had been exposed to at least one sexual or physical assault experience. Furthermore, this study has also indicated that there is a prevalence of sexually-related traumas, especially among female participants, as 19.79 percent of them indicated having been sexually harassed, while 16.33 percent of them also reported having been forced into sexual intercourse. However, these numbers may in fact be higher than what the participants reported as studies have indicated that there is a problem of under-reporting of sexually related crimes. This has been attributed to the sensitivity of this matter as well as the fear that the victims live with, mostly instilled by perpetrators (Kempen, 2019). Of particular note, the results indicated that the female participants reported more cases of sexual assault, harassment and rape, compared to male participants. This is consistent with other studies indicated in Leoschut's (2013) school violence survey. This may be explained by the social construction of masculinity, which is characterised by strength and courage. This is in contrast with being sexually assaulted, which is associated with weakness and a sense of shame (Khuzwayo et al., 2016). Furthermore, other studies have indicated that self-reports on violence, especially gender-based violence, has been under-reported due to social desirability, i.e., individuals do not report gender-based violence because of a fear of negative evaluation, discrimination or stigmatisation (Wubs et al., 2009). These findings highlight the issue of gender-based violence in South Africa, as indicated in the literature review, which has been recognised as a national pandemic. Finally, there was a high percentage (i.e., 36.67) of the participants in this study who indicated having had either themselves or family members get seriously ill, of which the majority was related to the COVID-19 pandemic.

6.2 Prevalence of Traumatic Stress

This study also explored the prevalence of traumatic stress. Studies have indicated that not all traumatic events lead to clinical diagnoses such as PTSD or depression, rather individuals can display post-traumatic stress symptoms (PTSS), that may cause significant distress but not significant enough to make a clinical diagnosis (Steyn, 2009). This study indicated that 74.33 percent of the participants that had been exposed to a traumatic event reported displaying at least one PTSS. Furthermore, the result showed an overall average score of 3.13, which indicates that most individuals reported several PTSS following a traumatic event. Kenardy et al. (2006) indicated that the cut-off score of ≥ 5 , on the CTSQ is what provides the optimum predictive value for PTSD screenings. Thus, from these findings, it seems that, although the majority of the

participants present with PTSS, they do not necessarily meet the diagnostic criteria for PTSD. This is consistent with findings from previous studies that indicated that more individuals show PTSS but do not meet the DSM-5 diagnostic criteria for PTSD (Cascardi et al., 2015). However, this does not mean that these individuals do not experience distress but rather that the distress may not be severe enough to cause significant distress that would interfere with their daily functioning in different areas, such as their social life or academic performance (American Psychiatric Association, 2013). These individuals may still need assistance or interventions to help them deal with these distresses because they could potentially develop into more intense distress if left untreated, i.e., this can further develop into a clinical condition (Steyn, 2009). This study's findings also revealed that 31.3 percent of the participants reported enough symptoms that were above the cut-off score for PTSD screening, which indicates that almost a third of the participants in this study may be experiencing symptoms that are significant enough to make a PTSD diagnosis, according to the DSM-5. This is a significantly higher percentage of participants displaying symptoms that meet the diagnosis of PTSD compared to a previous South African study by Seedat et al. (2000), which indicated 12.1 percent. Another study conducted among adolescents in Limpopo, who had been exposed to various types of traumatic events, indicated that 8.4 percent fulfilled the diagnostic criteria for PTSD (Peltzer, 1999). This number was also higher than that of a study done Suliman et al. (2005), which revealed that 14.5 percent of the participants fulfilled the full criteria for a PTSD diagnosis. Finally, the findings in this study were also consistent (although slightly lower) than those of a study conducted by Esterhuyse et al. (2007), in Limpopo, which indicated that almost half of the participants reported symptoms that were consistent with a PTSD diagnosis. However, this study also highlighted that a conclusive diagnosis cannot be made from self-report questionnaires, which is what this study used. In like manner, this principle also applies in this study with the abovementioned 31.3 percent of the participants, who reported more than five symptoms. There is a need for further assessments by a qualified professional before a clinical diagnosis can be made.

6.3 The Relationship Between Trauma Exposure and Traumatic Stress

There is an extensive body of research over the past century that has indicated the relationship between trauma exposure and the development of PTSS as well as PTSD. The research has indicated a significant positive correlation between exposure to traumatic events and the

development of PTSD (Beal et al., 2019; Chopko et al., 2018; McGowan & Kagee, 2013; Peltzer, 1998; Seedat et al., 2000; Suliman et al., 2009; Ward et al., 2001). This study yielded results that are consistent with the current body of findings on the relationship between trauma exposure and PTSS. Thus, these findings serve to further establish and support the current findings on this relationship. What this means is that the more traumatic experiences one is exposed to, the higher the risk of them developing PTSS and also the higher the likelihood of developing psychiatric conditions such as PTSD, anxiety and depression (McQuaid & Bombay, 2015). However, it is important to note that the findings also appeared to be inconsistent, where several individuals scored high on trauma exposure but low on PTSS. This may be due to multiple factors such as response biases on the side of the participants. Furthermore, this could be because there may be other factors that affect individuals' responses to traumatic experiences such as trauma severity and lack of social support (Elwood et al., 2009), personality type (Rademaker et al., 2011), resilience (Lee et al., 2014), and anxiety sensitivity (Wald & Taylor, 2008) which have not been accounted for in this study. In addition, as indicated in this study, PTG is also a factor that has been identified to have a potential buffering effect on the development of PTSD (Park et al., 2010). As such, the relationship between trauma exposure and the development of PTSS involves multiple factors that are not mutually exclusive. This relationship includes far more than the frequency of exposure but also the types of exposure; for example, other studies have indicated that exposure to sexual trauma is related to higher PTSS compared to other traumatic experiences (Seedat et al., 2004). It is beyond the scope of this study to explore the multiple factors that affect the relationship between trauma exposure and PTSD. However, it remains true, as indicated in this study and previous studies that higher exposure to traumatic events is positively correlated to higher traumatic stress. Thus, the results support the hypothesis of this research study.

According to the organismic valuing theory of growth through adversity, the positive correlation between life adversities and traumatic stress can be understood as the result of a failure to successfully engage in the process of positive accommodation following a traumatic event (Joseph & Linley, 2005). This theory also proposes that this kind of failure may be due to a non-supportive environment that fails to provide the individual with the basic psychological needs (i.e., autonomy, competence, and relatedness) which leaves them vulnerable to the development of PTSS (Joseph & Linley, 2005).

6.4 The Role of Posttraumatic Growth in the Relationship Between Life Adversities and Traumatic Stress

A body of recent research (i.e., over the past two decades) has indicated that individuals can experience growth as a result of traumatic experiences and this growth can have a buffering effect on the development of PTSD (Park et al., 2010). As such, there is a body of research that indicated that there is a negative correlation between PTG and traumatic stress (Linley & Joseph, 2004; Park et al., 2010; Tedeschi & Calhoun, 2004). However, in contrast to this body of research, other research findings have indicated that there is a positive correlation between traumatic stress and PTG and that there is a coexistence of these two variables, i.e., they are not mutually exclusive (Linley & Joseph, 2004). The results in this study are consistent with the latter body of research findings as they indicated that traumatic stress is positively and significantly related to PTG. This means that as one's levels of distress increase due to adversity, so does the likelihood of their reporting more symptoms of PTG. Thus, PTG did not moderate the relationship between life adversities and traumatic stress.

The organismic valuing theory of growth through adversity (explained in Chapter 3) can be used to explain the findings in this study, i.e., the fact that there is a positive correlation between traumatic stress and PTG. This theory proposes that following a traumatic event, individuals have an inward drive that causes them to seek to make sense of those experiences in order to re-integrate their assumptive world that was shattered by the traumatic event (Joseph & Linley, 2005). As a result, they seek to retrospectively process the traumatic experiences and reconcile the meaning of those traumatic experiences by engaging in automatic processes of intrusion and rumination (Davis & Wohl, 2007). It is important to note that intrusion and rumination are not necessarily distressing but refer to the emergence of the trauma content into one's consciousness and an active engagement with this content. Thus, these should not automatically be linked with a negative connotation, i.e., traumatic stress or PTSD (Park et al., 2010). In contrast, these processes have the potential of facilitating the positive accommodation process that would reorganise and re-integrate their existing assumptive world, thus facilitating PTG (Joseph & Linley, 2005). Thus, from this theoretical point of view, the processes that are involved in PTG and traumatic stress are similar. In both PTG and traumatic stress, individuals will display (especially in the initial stages) PTSS such as intrusions, ruminations, negative cognitive alternations and avoidance symptoms. This

explains the positive correlation between traumatic stress and PTG; i.e., following a traumatic event, individuals are more likely to report both PTSS as well as PTG. From this perspective, PTG would not moderate the relationship between life adversities and traumatic stress as PTG and traumatic stress symptoms are similar. Furthermore, the organismic valuing theory of growth through adversity proposes that, although all individuals always display PTSS following a traumatic event, they will eventually continue on different trajectories, which could either facilitate the process of positive accommodation (which is linked with PTG) or negative accommodation (which is linked with PTSS). This will depend on how they deal with the trauma information as well as the presence or absence of a supportive environment (Joseph & Linley, 2005). Furthermore, studies have indicated that although there is a positive correlation between traumatic stress and PTG, PTG may reduce the symptoms and intensity of post-traumatic stress over time as the individuals have successfully engaged in the process of positive accommodation (Barakat et al., 2006). PTG has been presented as the result of cognitive processing that may reduce symptoms of post-traumatic stress over time.

The results also indicated that PTG moderated the relationship between life adversities (type) and traumatic stress. This is consistent with the notion that PTG has a buffering effect on traumatic stress following exposure to life adversities. However, in this study, this buffering effect is limited only to the type of life adversity to which an individual is exposed. The theoretical framework cannot be used to explain this nuanced difference as it does not differentiate between different types of life adversities but rather focuses on life adversities in general. From the discussion in this section, it is evident that there are inconsistent findings related to the role of PTG in the relationship between life adversities and traumatic stress. Goral et al. (2020) noted that this contrast is an indication that the relationship between these three variables is still not fully understood.

6.5 Life Adversities and Gender

Studies on the differences in exposure to life adversities between males and females have yielded inconsistent results in the past, with certain studies indicating that there are no significant differences (McGowan & Kagee, 2013). However, other studies have indicated that males have a higher exposure rate than females (Seedat et al., 2004), while others have indicated that females have higher exposure rates than males (Seedat et al., 2000). This study was consistent with those which indicated that there is no statistically significant differences in exposure across the two

genders. Furthermore, other studies have indicated that the differences varied, depending on the types of exposure. For instance, a study by Seedat et al. (2004) indicated that male participants are exposed to more violence-related traumatic experiences, while females were exposed to higher rates of other types of traumatic experiences. Thus, from these findings as well as previous findings in other studies, there is no consistency in the differences of exposure across the two genders.

6.6 Traumatic Stress and Gender

The findings in this study indicated that there was a higher prevalence of PTSS in female participants compared to male participants. Female participants reported one more symptom, on average, compared to the male participants. Although there is a difference, it is not statistically significant and thus is not conclusive enough to make an inference. However, it is still somewhat consistent with previous findings that have indicated that females often report more PTSS (McGowan & Kagee, 2013; Peltzer, 2003; Seedat et al., 2000; Seedat et al., 2004).

CHAPTER 7: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

This study aimed to investigate the relationship between life adversities, traumatic stress, and post-traumatic growth in a sample of high school learners in Limpopo Province of South Africa. This aim was achieved by setting and accomplishing two main objectives, i.e., by (1) exploring the nature of the relationship between life adversities and traumatic stress, and (2) exploring the role of PTG in the relationship between life adversities and traumatic stress. Finally, this study also explored the prevalence of life adversities and traumatic stress as well as differences in the prevalence of life adversities and traumatic stress between males and females.

7.1 Conclusions

7.1.1 Prevalence of Life Adversities and Traumatic Stress

The study also focused on exploring the prevalence of exposure to traumatic events as well as the prevalence of traumatic stress. The results further indicated that the majority of the participants have been exposed to at least one traumatic event in their lives. Furthermore, it has also indicated a large number of them display several PTSS, with a further 31.3 percent displaying at least five symptoms or more, which according to Kenardy et al. (2006), provides the optimum predictive value for PTSD screenings. However, this is not to say that all these participants will meet the DSM-5 diagnostic criteria for PTSD. However, these results still indicate the gravity of this problem in such areas with limited resources which may make it even more difficult for the early detection of potentially traumatised learners at schools.

7.1.2 Relationship Between Life Adversities, Traumatic Stress, and Posttraumatic Growth

The results indicated that there is a positive correlation between exposure to life adversities and traumatic stress. This indicates that the more one is exposed to adverse life events, the more the likelihood of their expressing multiple and even more intense PTSS. There are notions of allostatic load that aims to explain this phenomenon, namely, that individuals cannot resist the constant bombardment of life adversities without experiencing any detriments with regard to their mental health (Zebrack et al., 2015). Furthermore, the results indicated that PTG has a positively significant and direct influence on the traumatic stress of the participants. This indicated that participants who reported more PTG are reporting more traumatic stress.

7.1.3 Life Adversities, Traumatic Stress, and Post-traumatic Growth According to Gender

The study also focused on exploring the differences in the three variables between male and female participants. The results indicated that there was no difference in the exposure to life adversities between the two genders. However, there was a difference in exposure to sexual-related traumas between males and females, with females indicating to having been exposed to more traumas that fall in this cluster compared to male participants. This highlights the problem of gender-based violence which is a significant problem not only among learners but also among most women across all age groups in South Africa as studies have indicated that “South Africa remains one of the most dangerous countries in the world to be a woman” (Kelly, 2021, p. 105). However, given the sensitivity of this matter, studies have shown that there is often an under-reporting of these kinds of traumas (Kempen, 2019). Thus, the results indicated may not be the most accurate representation of the prevalence of this problem among these learners. The results further indicated that there are differences between male and female participants in the prevalence of traumatic stress, with female participants showing higher rates than male participants. In contrast, male participants reported high rates of PTG than female participants. This is consistent with existing literature.

7.2 Limitations

7.2.1 General Limitations

This study used a self-report questionnaire. Although they are standardised and have proved to be valid and reliable, there is always a risk of response biases on the part of the participants, where participants engage in social desirability biases to present themselves in a positive light (Webster, 2019). Furthermore, although one of the inclusion criteria for participation in this study was a strong command of English, it is important to note that most of the participants in this study did not have English as their home language. Thus, there may have been a potential for misunderstanding or not fully understanding certain concepts or terminologies that were used in the questionnaire. In addition, there is a limitation related to the study sample. This study was conducted in six schools in Limpopo Province, most of which were within the same area (i.e., districts) as the researcher used a convenience sampling method. Thus, the sample does not provide the most accurate representation of the province as a whole.

7.2.2 Limitations related to the Prevalence of Life Adversities and Traumatic Stress

There is an existing body of research exploring the prevalence of life adversities and traumatic stress. However, the review of existing literature indicated that limited research has been done on the prevalence of life adversities and traumatic stress in rural and socioeconomically disadvantaged areas in South Africa. In particular, a search of the literature indicated that there has been little research done on trauma in Limpopo over the past five years.

7.2.3 Limitations related to the Relationship Between Life Adversities, Traumatic Stress, and Post-traumatic Growth

A review of the literature indicates that the relationship between exposure to life adversities and traumatic stress has been well-established. However, there seems to be inconsistency and a lack of adequate understanding of the role that PTG plays in potentially buffering the negative outcome of traumatic stress following exposure to life adversities. This was also indicated in this study where PTG has a buffering effect on the exposure to life adversities on traumatic stress. However, it does not have any moderating role of the type of life adversities on traumatic stress. This seems to be a difficult phenomenon to explain and understand as there might be more unidentified variables that affect this relationship. Thus, this study was only able to highlight this difference but was not able to explain it. This serves as an indication of the limited amount of research and understanding of this phenomenon.

7.2.4 Limitations related to Life Adversities, Traumatic Stress, and Post-traumatic Growth according to Gender

Finally, although the researcher put effort into ensuring the safety of the environment in which these questionnaires were administered, some of the participants may have not felt safe enough to provide genuine responses as they answered the questionnaires. The researcher was still limited as there were limited resources (both human resources and practical limitations) which saw a large number of participants gathering in one setting, although still keeping with the COVID-19 regulations. This may have heightened the levels of vulnerability and insecurity. Thus, this may have served as a limitation of this study in exploring the prevalence of this sensitive and significant problem among learners, such as sexually-related traumas.

7.3 Recommendations

7.3.1 General Recommendations

It is recommended that future studies should use a larger sample, with participants from rural areas from multiple districts and communities, in Limpopo. Such a sample would be more representative of the broader province rather than just two districts as indicated in this study.

7.3.2 Recommendations related to the Limitation of Trauma-Related Literature

Related to the finding that there is limited literature focusing on trauma in Limpopo, it is recommended that further research explores the prevalence of exposure to traumatic events as well as traumatic stress, in this province.

7.3.3 Recommendation related to Exploring the Role of Post-traumatic Growth on the Relationship between Life Adversities and Traumatic Stress

It is recommended that more research be done, that focuses on the role of PTG in the relationship between exposure to life adversities and traumatic stress as well as theories that would explain this relationship more adequately, with a thorough explanation of other potential variables that could affect this relationship. More research can also be done on exploring the differences in traumatic stress responses as a result of exposure to life adversities (types).

7.3.4 Recommendation on Exploring Sensitive Traumas

It is recommended that future studies, particularly when exploring such sensitive matters, use a setting that has fewer participants. Furthermore, it is recommended that these studies aim to separate the male and female participants to provide a more confined and safe environment when exploring sensitive matters, such as sexually-related traumas.

7.3.5 Recommendations related to Raising Awareness

Having highlighted the high prevalence levels of exposure to life adversities and traumatic stress, it is evident that there is a need to raise awareness, both among the learners as well as their teachers and family members, related to the prevalence of these problems that exist among learners. Literature has particularly highlighted the important role that teachers can play in the prevention

and intervention of mental health problems among learners (Bostock et al., 2011). For this, the teachers would need to be aware of the prevalence of exposure to life adversities and traumatic stress among learners. This study as well as previous studies indicate that more research on this topic in socioeconomically disadvantaged areas would be beneficial.

On the side of research and further development, research can also focus on exploring the prevalence of specific life adversities among learners such as violence, sexual assaults and bullying as these issues are prominent in South African rural areas. Such research would help explore the prevalence of these mental health problems, which would assist the DoE in taking preventative and interventive measures, that are based on solid empirical data.

Furthermore, it is recommended, based on this data and previous supporting findings, that the Limpopo DoE develop programmes in schools that focus on raising mental health awareness, both among the learners and teachers. Given the lack of recourses, this would not necessarily be on a large provincial scale but it could begin on a small scale through the provision of a more direct and specific focus of mental health talks at specific schools. This could be achieved by getting a professional such as a social worker, registered counsellor or psychologist from local clinics or hospitals to make quarterly or bi-yearly visits to schools to provide psycho-education and mental health information sessions. These sessions could include information on different mental health disorders as well as their symptoms and provide them with practical information related to how they can receive mental health-related assistance. This can also be used as a way of normalising mental health discourse and help-seeking behaviour, while at the same time challenging mental health-related stigma and prevalent myths. Depending on the success of this intervention, this could then gradually be applied to more schools as well as on a more provincial level where this might even impact the school curriculum (using the Life Orientation subject) to include more mental health-related education for learners. This type of intervention, however, would require that the teachers themselves are aware of and have some fundamental knowledge of both the prevalence and nature of certain prominent mental health disorders such as anxiety, depression and trauma. This would also begin from a smaller scale, with most of the burden taken up by the Life Orientation teachers, who could also potentially get training in this regard.

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APPENDIX A: PERMISSION TO CONDUCT RESEARCH FROM THE DOE

CONFIDENTIAL



TO: DR MC MAKOLA

FROM: DR T MABILA

CHAIRPERSON: LIMPOPO PROVINCIAL RESEARCH ETHICS COMMITTEE (LPREC)

ONLINE REVIEW DATE: 07th-14th DECEMBER 2021

SUBJECT: THE RELATIONSHIP BETWEEN LIFE ADVERSITIES, TRAUMATIC STRESS AND POST-TRAUMATIC GROWTH OF ADOLESCENTS IN LIMPOPO PROVINCE OF SOUTH AFRICA PROVINCE

RESEARCHER: MAHLATJI RMM

Dear Colleague

The above researcher's research proposal served at the Limpopo Provincial Research Ethics Committee (LPREC). The ethics committee is satisfied with the ethical soundness of the proposed study.

Decision: The revised research proposal is granted full approval and ethical clearance

Regards

Chairperson: Dr T Mabila

Secretariat: Ms J Mokobi

Date: 19/01/2022

APPENDIX B: PERMISSION CONDUCTED RESEARCH FROM THE HUMANITIES DEPARTMENT AT THE UNIVERSITY OF PRETORIA.



Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotheo



04 April 2022

Dear Mr RMM Mahlatji

Project Title: The relationship between life adversities, traumatic stress and post-traumatic growth of adolescents in Limpopo province of South Africa
Researcher: Mr RMM Mahlatji
Supervisor(s): Dr NA Matamela
Department: Psychology
Reference number: 16178140 (HUM032/0121)
Degree: Masters

I have pleasure in informing you that the above application was **approved** by the Research Ethics Committee on 04 April 2022. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

We wish you success with the project.

Sincerely,

Prof Karen Harris
Chair: Research Ethics Committee
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: tracey.andrew@up.ac.za

Research Ethics Committee Members: Prof KL Harris (Chair); Mr A Bizos; Dr A-M de Beer; Dr A dos Santos; Dr P Gutura; Ms KT Govinder Andrew; Dr E Johnson; Dr D Krige; Prof D Maree; Mr A Mohamed; Dr I Noomé; Dr J Okeke; Dr C Puttergill; Prof D Reyburn; Prof M Soer; Prof E Taljard; Ms D Mokalapa

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APPENDIX C: INFORMATION SHEET AND CONSENT FORM FOR PARTICIPANTS OLDER THAN 18 YEARS

Information and Consent Document

TITLE OF THE STUDY

The relationship between life adversities, traumatic stress and post-traumatic growth of adolescents in Limpopo province of South Africa.

My name is Reginald Modipi Mpho Mahlatji, I am currently a Master's student at the Faculty of Humanities, University of Pretoria. You are being invited to take part in my research study titled "The relationship between life adversities, traumatic stress and post-traumatic growth of adolescents in Limpopo province of South Africa". Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take some time to read the following information carefully, which will explain the details of this research project. Please feel free to ask the researcher if there is anything that is not clear or if you need more information.

WHAT IS THE PURPOSE OF THE STUDY?

- The purpose of this study is to explore the impact of life adversities on adolescents. Very few studies have been done that focus on both the positive and negative impacts of life adversities. I have decided to conduct a study on both the positive and negative impacts on adolescents.

- The overall aim of this study is to explore the relationship between life adversities, traumatic stress and trauma-related beliefs and the possible moderating role of post-traumatic growth on this relationship.

WHY HAVE YOU BEEN INVITED TO PARTICIPATE (INCLUSION AND EXCLUSION CRITERIA)?

- You will be invited to participate because you are an adolescent in Limpopo
- You have also complied with the following:
 - You are residing in Limpopo
 - You meet the age restriction (between 13 and 19)
- You need to be able to read and understand English
- You will be excluded if you are younger than 13 years old or more than 19 years old

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

- You will be expected to participate in this study by answering a questionnaire that has five sections. Section 1 contains questions related to your personal information (e.g. age, gender etc.). Section 2 contains questions about any exposure to past traumatic experiences. Section 3 contains questions about any trauma symptoms. Section 4 contains questions about any positive changes that occurred due to exposure to the traumatic experiences. This questionnaire will take approximately 60 minutes.
- Given that we are currently in the middle of the COVID-19 pandemic and under strict and necessary restrictions to minimise the risk of the spreading of the virus, this study also shares the same goal. Thus, the necessary Covid-19 protocol will be followed throughout the whole process. This includes ensuring keeping social distancing and sanitisation guidelines. In addition, the administration of the questionnaire will be given in smaller groups to avoid having many participants in one setting at the setting, to keep up with social distancing regulations.

- To avoid taking away study time and the opportunity to learn through class attendance, the study will take place outside school hours.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

- Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason, if you decide not to take part in the study without negative consequences or being penalised

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER BE KEPT CONFIDENTIAL?

- Anonymity will be assured as you will not be required to fill in your name. This as a result assures you of your confidentiality also. Findings from this data will be distributed/communicated through conferences and publications. Reporting of findings will be anonymous, only the researchers of this study will have access to the information.
- Please note participant information will be kept confidential, except in cases where the researcher is legally obliged to report incidents such as abuse and suicide risk.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

- Participation in the research study will help produce information related to the difficulties that adolescents face in their daily life, and how these difficulties affect them. This information can be helpful for policy developers as they can mobilise the necessary resources to help adolescents in distress to better cope with their distress.

WHAT ARE THE ANTICIPATED RISKS FROM TAKING PART IN THIS STUDY?

- Participation in this study poses certain risks for participants as it can affect them in certain ways. Of particular attention is the risk of causing potential psychological distress (can include, but is not limited to, sadness and anxiety). This is due to the fact questionnaires in this study can bring participants to think about past painful, stressful or traumatic events.
- However, there will be available measures to minimise these risks, such as counselling services to ensure that those participants who are distressed by this research will have the necessary support they need to deal with their distress. Information will be provided to participants on how they can make use of such services, which will be free. Participants and/or their guardians are also encouraged to make use of the researcher's contact details (included at the end of this form) should there be any questions related to this.

WHAT WILL HAPPEN IN THE UNLIKELY EVENT THAT SOME FORM OF DISCOMFORT OCCUR AS A RESULT OF TAKING PART IN THIS RESEARCH STUDY?

- Should you need further discussions after the questionnaires an opportunity will be arranged for you to ask questions about anything related to this study and any of the concerns you may have. We will take the necessary actions needed to ensure that you get the necessary help you will need. Participants will also be provided with the contact details of a social worker within the area who would be able to provide telephonic debriefing at no cost as they will just be required to make initial contact after which, they will be contacted by the social worker. In-person, debriefing will also be available. The social worker will also make further referrals if the need arises.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

- Electronic information will be stored for a period of 15 years. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

- Participant information in hard copies of raw data be will locked in the cabinet and electronic data will be kept in a file that is password protected in the Department of Psychology.

WHAT WILL THE RESEARCH DATA BE USED FOR?

- Data gathered from the participant would be used for research purposes that included:
 - Dissertation (i.e., academic research paper or writing) and article publication
 - Policy briefs

WILL I BE PAID TO TAKE PART IN THIS STUDY?

- No, you will not be paid to take part in this study.
- There will be no costs involved to you if you take part in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Committee of the Faculty of Humanities, University of Pretoria. The ethical approval number is..... A copy of the approval letter can be provided to you on request.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

- The findings of the research study will be shared with you by Reginald Modipi Mpho Mahlatji after one year or two years of completing the study.

WHO SHOULD I CONTACT IF I HAVE CONCERNS, COMPLAINTS OR ANYTHING I SHOULD KNOW ABOUT THE STUDY?

If you have questions about this study or you have experienced adverse effects as a result of participating in this study, you may contact the researcher whose contact information is provided below. If you have questions regarding the rights as a research participant, or if problems arise that you do not feel you can discuss with the researcher, please contact the supervisor, and contact details are below

Thank you for taking the time to read this information sheet and in advance for participating in this study.

Researcher

Name Surname: Reginald Mahlatji

Contact number: 079 035 0267

Email address: reggiemahlatji@gmail.com

Supervisor

Name: Dr Nyambeni Matamela

Contact number: 066 200 1008

Email address: nyambeni.matamela@up.ac.za

Consent Form

Please take time to fill in and sign the consent form below:

I, _____ (**participant name**), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGRE E	NOT APPLICABL E
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and			
I understand that information collected during the study will not be linked to my identity and I give permission to the			
I understand that this study has been reviewed by, and received ethics clearance from Research Ethics Committee			
I understand who will have access to personal information and how the information will be stored with a clear			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing			
I understand how to raise a concern or make a complaint.			
I give permission to be quoted directly in the research publication while remaining anonymous.			
I have sufficient opportunity to ask questions and I agree to take part in the above study.			

Name of Participant

Date

Signature

Name of person taking consent

Date

Signature

**APPENDIX D: INFORMATION SHEET AND ASSENT FORM FOR PARTICIPANTS
YOUNGER THAN 18 YEARS**

Information and Assent Document for Children 7-18 Years

TITLE OF THE STUDY

The relationship between life adversities, traumatic stress and post-traumatic growth of adolescents in Limpopo province of South Africa.

My name is Reginald Modipi Mpho Mahlatji, I am currently a Master's student at the Faculty of Humanities, University of Pretoria. I have identified this school as a potential population from which I can select participants for my research project. I am requesting permission for your child to take part in my research project that is aimed at exploring the relationship between the abovementioned variables in the title of the study. Before you decide to allow your child to take part in this study, it is important that you understand why the research is being done and what it will involve. Please take some time to read the following information carefully, which will explain the details of this research project. Please feel free to ask the researcher if there is anything that is not clear or if you need more information.

WHAT IS THE PURPOSE OF THE STUDY?

- The purpose of this study is to explore the impact of life adversities on adolescents. Very few studies have been done that focus on both the positive and negative impacts of life adversities. I have decided to conduct a study on both the positive and negative impacts of life adversities on adolescents.
- The overall aim of this study is to explore the relationship between life adversities, traumatic stress and trauma-related beliefs and the possible moderating role of post-traumatic growth on this relationship.

WHAT ARE THE INCLUSION AND EXCLUSION CRITERIA FOR THE STUDY?

- Participants must comply with the following:
 - They must be residing in Limpopo
 - They meet the age restriction (between 13 and 19)
- They need to be able to read and understand English
- They will be excluded if they are younger than 13 years old or more than 19 years old

WHAT IS THE NATURE OF PARTICIPANTS' PARTICIPATION IN THIS STUDY?

- Your child will be expected to participate in this study by answering a questionnaire that has five sections. Section 1 contains questions related to their personal information (e.g. age, gender etc.). Section 2 contains questions about any exposure to past traumatic experiences. Section 3 contains questions about any trauma symptoms. Section 4 contains questions about any positive changes that occurred due to exposure to the traumatic experiences. This questionnaire will take approximately 60 minutes. This can be done during one of their periods, thus it would not interfere a lot with your child's academic programme.

CAN PARTICIPANTS WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

- Participation in this study is voluntary and your child is under no obligation to consent to participation. If he/she does decide to take part, he/she will be given this information sheet to keep and be asked to sign a written consent and assent form. Your child will be free to withdraw at any time and without giving a reason, if he/she decides not to take part in the study without negative consequences or being penalised

WILL THE INFORMATION THAT PARTICIPANTS CONVEY TO THE RESEARCHER BE KEPT CONFIDENTIAL?

- Anonymity will be assured as your child will not be required to fill in his/her name. This as a result assures them of their confidentiality also. Findings from this data will be disseminated through conferences and publications. Reporting of findings will be anonymous, only the researchers of this study will have access to the information.
- Please note participants' information will be kept confidential, except in cases where the researcher is legally obliged to report incidents such as abuse and suicide risk.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

- Participation in the research study will help produce information related to the difficulties that adolescents face in their daily life, and how these difficulties affect them. This information can be helpful for policy developers as they can mobilise the necessary resources to help adolescents in distress to better cope with their distress.
- This kind of information can also produce knowledge that the Department of Education can use in things like curriculum development that would help facilitate learning about mental health and tackling the stigma that is still dominant about mental health, particularly in socioeconomically disadvantaged areas.
- This knowledge would also be useful to this school as it would have some insight into the prevalence of life adversities and the impact thereof on pupils.
- This would help you as parents have the awareness of the things that your children are exposed to that may be causing them much distress and which may be affecting their academic performances. This would help initiate discussions about mental health issues in the homes and school premises.
- This would enable you to help provide them with the support that they need.

WHAT ARE THE ANTICIPATED RISKS FROM TAKING PART IN THIS STUDY?

- The risks in this study are that participation in this study can lead to distress in the participants, as they may be brought to think about past painful, stressful or traumatic events.
- However, there will be available measures to minimise these risks, such as counselling services to ensure that those participants who are distressed by this research will have the necessary support they need to deal with their distress. Information will be provided to participants on how they can make use of such services, which will be free.

WHAT WILL HAPPEN IN THE UNLIKELY EVENT THAT SOME FORM OF DISCOMFORT OCCUR AS A RESULT OF TAKING PART IN THIS RESEARCH STUDY?

- Should your child need further discussions after the questionnaires, an opportunity will be arranged for him/her to ask questions about anything related to this study and any of the concerns that he/she may have. We will take the necessary actions needed to ensure that he/she gets the necessary help that he/she will need.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

- Electronic information will be stored for a period of 15 years. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.
- Participant information in hard copies of raw data will be locked in the cabinet and electronic data will be kept in a file that is password protected in the Department of Psychology.

WHAT WILL THE RESEARCH DATA BE USED FOR?

- Data gathered from your child would be used for research purposes that included:
 - Dissertation and article publication
 - Policy briefs

WILL PARTICIPANTS BE PAID TO TAKE PART IN THIS STUDY?

- No, he/she will not be paid to take part in this study.
- There will be no costs involved for your child to take part in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Committee of the Faculty of Humanities, University of Pretoria. The ethical approval number is..... A copy of the approval letter can be provided to you on request.

HOW WILL YOU BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

- The findings of the research study will be shared with you by Reginald Modipi Mpho Mahlatji after one year or two years of completing the study.

Thank you for taking the time to read this information sheet and in advance for allowing me to conduct this research study.

Assent Form

Please take time to fill in and sign the assent form below:

I, _____, parent/ guardian of _____ confirm that the person asking my consent for my child to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

STATEMENT	AGREE	DISAGREE	NOT APPLICABLE
I understand that my child's participation is voluntary and that he/she is free to withdraw at any time, without giving any reason, and without any consequences or penalties.			
I understand that information collected during the study will not be linked to his/her identity and I give permission to the researchers of this study to access the information.			
I understand that this study has been reviewed by, and received ethics clearance from Research Ethics Committee Faculty of Humanities of the University of Pretoria.			
I understand who will have access to my child's personal information and how the information will be stored with a clear understanding that, he/she will not be linked to the information in any way.			
I give consent that data gathered may be used for dissertation, article publication, conference presentations and writing policy briefs.			
I understand how to raise a concern or make a complaint.			
I give permission for my child to be quoted directly in the research publication while remaining anonymous.			
I have sufficient opportunity to ask questions and agree that my child takes part in the above study.			

Name of Participant Date Signature

Name of Parent Date Signature

Name of person taking consent Date Signature

Researcher

Name Surname: Reginald Mahlatji

Contact number: 079 035 0267

Email address: reggiemahlatji@gmail.com

Supervisor

Name: Dr Nyambeni Matamela

Contact number: 066 200 1008

Email address: nyambeni.matamela@up.ac.za

APPENDIX E: PERMISSION TO COLLECT DATA FROM MMIDITSI HIGH SCHOOL

Permission to carry out data collection

I, MAREBANE KD (full name), in my capacity as, principal
(designation), at Mmiditshi (name of school) confirm that the person asking my
consent to conduct this research at my school has told me about the nature, procedure, potential benefits
and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this
research project to be carried out at the school.

MAREBANE KD
Name of principal or gatekeeper

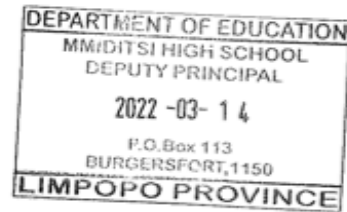
2022-03-14
Date

KD Marebane
Signature

Reginald Mahlatji
Name of person taking consent

09/03/2022
Date

RM
Signature





Dated School Stamp

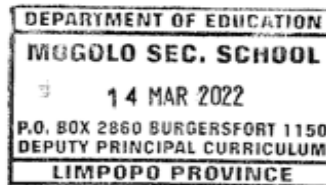
APPENDIX F: PERMISSION TO COLLECT DATA FROM MOGOLO SECONDARY SCHOOL

Permission to carry out data collection

I, PHASHA ALICEA (full name), in my capacity as, DEPUTY PRINCIPAL (designation), at MOGOLO (name of school) confirm that the person asking my consent to conduct this research at my school has told me about the nature, procedure, potential benefits and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this research project to be carried out at the school.

PHASHA A.N 14/02/2022 
Name of principal or gatekeeper Date Signature

Reginald Mahlatji 09/03/2022 
Name of person taking consent Date Signature



Dated School Stamp

APPENDIX G: PERMISSION TO COLLECT DATA FROM MANKOENG SECONDARY SCHOOL

Permission to carry out data collection

I, SIFEGA MARUS MABELE (full name), in my capacity as, PRINCIPAL
(designation), at MANKOENG (name of school) confirm that the person asking my
consent to conduct this research at my school has told me about the nature, procedure, potential benefits
and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this
research project to be carried out at the school.

MABELE SM 15/03/2022 [Signature]
Name of principal or gatekeeper Date Signature

Reginald Mahlatji 09/03/2022 [Signature]
Name of person taking consent Date Signature

<p>DEPARTMENT OF EDUCATION MANKOENG SECONDARY SCHOOL 15-03-2022 P.O. BOX 1103, SOVENGA. 0727 LIMPOPO PROVINCE</p>

Dated School Stamp

APPENDIX H: PERMISSION TO COLLECT DATA FROM MALENGINE SECONDARY SCHOOL

Permission to carry out data collection

I, KGODEI C.L (full name), in my capacity as, Department Head (designation), at Malengine See (name of school) confirm that the person asking my consent to conduct this research at my school has told me about the nature, procedure, potential benefits and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this research project to be carried out at the school.

KGODEI C.L
Name of principal or gatekeeper

09/03/22
Date

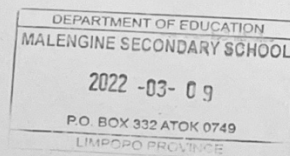
[Signature]
Signature

Reginald Mahlatji
Name of person taking consent

09/03/2022
Date

[Signature]
Signature

Dated School Stamp



APPENDIX I: PERMISSION TO COLLECT DATA FROM MORUTWA SECONDARY SCHOOL

Permission to carry out data collection

I, MANYUMA E.T.I (full name), in my capacity as, PRINCIPAL (designation), at MORUTWA SEC (name of school) confirm that the person asking my consent to conduct this research at my school has told me about the nature, procedure, potential benefits and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this research project to be carried out at the school.

MANYUMA E.T.I 14/03/2022 
Name of principal or gatekeeper Date Signature

Reginald Mahlatji 09/03/2022 
Name of person taking consent Date Signature

DEPARTMENT OF EDUCATION
MORUTWA SECONDARY SCHOOL
14-03-2022
P.O. BOX 4960 SOVENGA 0727
TEL/FAX: 015 287 3053
LIMPOPO PROVINCE

Dated School Stamp

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APPENDIX J: PERMISSION TO COLLECT DATA FROM BATAU SECONDARY SCHOOL

Permission to carry out data collection

I, MANZINI JOHN (full name), in my capacity as, PRINCIPAL (designation), at BATAU (name of school) confirm that the person asking my consent to conduct this research at my school has told me about the nature, procedure, potential benefits and anticipated inconvenience of the students' participation. Thus, I provide permission/consent for this research project to be carried out at the school.

MANZINI K-J 14/03/22 J.M. Manzini
Name of principal or gatekeeper Date Signature

Reginald Mahlatji 09/03/2022 R.M.
Name of person taking consent Date Signature



Dated School Stamp

APPENDIX K: LETTER FROM SOCIAL WORKER FOR PROVIDING COUNSELLING SERVICES TO PARTICIPANTS IN DISTRESS

To: The University of Pretoria, Humanities Ethics Department.

From: Tiishetjo Bridgette Matabane (Social Worker)

Practice NO: SACSSP 10-46902

Email: tiishetjobridgette@gmail.com

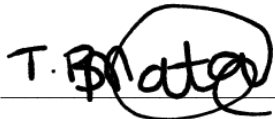
Cellphone: 0726909427

Re: Notification of contact person responsible for providing counseling services in the study carried out by Reginald Modipi Mahlatji.

This letter serves to inform the Ethics committee of the contact person who will be providing counseling services to participants who are distressed during the study carried out by Reginald Modipi Mahlatji. Counseling will be provided telephonically as the study is carried out in different parts of the Limpopo province. If face-to-face interventions are found to be a need participants will be referred to the nearest Social Work Offices.

Kind regards,

Tiishetjo Matabane.



Signature

APPENDIX L: RESEARCH QUESTIONNAIRE

Section A

BIOGRAPHICAL QUESTIONNAIRE

Please answer the following questions by crossing the relevant block. Provide only one response (by making a cross or writing in the relevant block) for each given question.

1. How old are you?

--

2. What grade are you?

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
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3. What gender do you identify with?

Male	Female	Other: Specify (if comfortable)	
		<table border="1" style="width: 100%; height: 20px;"> <tr> <td></td> </tr> </table>	

4. What race group do you belong to?

White	African	Indian	Coloured	Other: Specify	
				<table border="1" style="width: 100%; height: 20px;"> <tr> <td></td> </tr> </table>	

5. What ethnic group do you belong to?

Bapedi	Venda	Tsonga	Caucasian	Other: Specify	
				<table border="1" style="width: 100%; height: 20px;"> <tr> <td></td> </tr> </table>	

6. What is your home language?

Sepedi	Xitsonga	Tshivenda	English	Afrikaans	Other: Specify	
					<table border="1" style="width: 100%; height: 20px;"> <tr> <td></td> </tr> </table>	

7. Who do you live with at home?

Both parents	Single parent: Specify whether Mother or Father <input data-bbox="513 520 802 579" type="text"/>	Child-headed home	Other: Specify who/where <input data-bbox="1133 466 1421 520" type="text"/> <input data-bbox="1133 520 1421 579" type="text"/>
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Section B

TRAUMA HISTORY QUESTIONNAIRE

The following is a series of questions about serious or traumatic life events. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about the occurrence of such events, and reactions to them will help us to develop programmes for prevention, education, and other services. The questionnaire is divided into questions covering crime experiences, general disaster and trauma questions, and questions about physical and sexual experiences.

For each event, please indicate (circle) whether it happened and, if it did, the number of times and your approximate age when it happened (give your best guess if you are not sure). Also note the nature of your relationship to the person involved and the specific nature of the event, if appropriate.

<i>Crime-Related Events</i>		Circle one		<i>If you circled yes, please indicate</i>	
				Number of times	Approximate age(s)
1	Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?	No	Yes		
2	Has anyone ever attempted to rob you or actually robbed you (i.e., stolen your personal belongings)?	No	Yes		
3	Has anyone ever attempted to or succeeded in breaking into your home when you were <u>not</u> there?	No	Yes		
4	Has anyone ever attempted to or succeed in breaking into your home while you <u>were</u> there?	No	Yes		

General Disaster and Trauma		Circle one		<i>If you circled yes, please indicate</i>	
				Number of times	Approximate age(s)
5	Have you ever had a serious accident at school, in a car, or somewhere else? (<u>If yes</u> , please specify below)	No	Yes		
6	Have you ever experienced a natural disaster such as a tornado, wildfire, flood or major earthquake, etc., where you felt you or your loved ones were in danger of death or injury? (<u>If yes</u> , please specify below)	No	Yes		

TRAUMA HISTORY QUESTIONNAIRE

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7	Have you ever experienced a “man-made” disaster such as a train crash, building collapse, bank robbery, fire, etc., where you felt you or your loved ones were in danger of death or injury? (<u>If yes</u> , please specify below)	No	Yes		
8	Have you ever been exposed to dangerous chemicals or radioactivity that might threaten your health?	No	Yes		
9	Have you ever been in any other situation in which you were seriously injured? (<u>If yes</u> , please specify below)	No	Yes		
10	Have you ever been in any other situation in which you feared you <u>might</u> be killed or seriously injured? (<u>If yes</u> , please specify below)	No	Yes		
11	Have you ever seen someone seriously injured or killed? (<u>If yes</u> , please specify who below)	No	Yes		
12	Have you ever seen dead bodies (other than at a funeral) or had to handle dead bodies for any reason? (<u>If yes</u> , please specify below)	No	Yes		

13	Have you ever had a close friend or family member murdered, or killed by a drunk driver? (<u>If yes</u> , please specify relationship [e.g., mother, grandson, etc.] below)	No	Yes		
14	Have you ever had a spouse, romantic partner, or child die? (<u>If yes</u> , please specify relationship below)	No	Yes		
15	Have you ever had a serious or life-threatening illness? (<u>If yes</u> , please specify below)	No	Yes		
16	Have you ever received news of a serious injury, life-threatening illness, or unexpected death of someone close to you? (<u>If yes</u> , please indicate below)	No	Yes		

TRAUMA HISTORY QUESTIONNAIRE

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17	Have you ever had to engage in combat while in military service in an official or unofficial war zone? (<u>If yes</u> , please indicate where below)	No	Yes		
<i>Physical and Sexual Experiences</i>		Circle one		<i>If you circled yes, please indicate</i>	
				Repeated?	Approximate age(s) and frequency
18	Has anyone ever made you have intercourse or oral or anal sex against your will? (<u>If yes</u> , please indicate nature of relationship with person [e.g., stranger, friend, relative, parent, sibling] below)	No	Yes		
19	Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat? (<u>If yes</u> , please indicate nature of relationship with person [e.g., stranger, friend, relative, parent, sibling] below)	No	Yes		

20	Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have an unwanted sexual contact?	No	Yes		
21	Has anyone, including family members or friends, ever attacked you with a gun, knife, or some other weapon?	No	Yes		
22	Has anyone, including family members or friends, ever attacked you <u>without</u> a weapon and seriously injured you?	No	Yes		
23	Has anyone in your family ever beaten, spanked, or pushed you hard enough to cause injury?	No	Yes		
24	Have you experienced any other extraordinarily stressful situation or event that is not covered above? (<u>If yes</u> , please specify below)	No	Yes		

Section C

The Child Trauma Screening Questionnaire (CTSQ)

Please indicate whether any of these things have happened to you **after any adverse event**.

1. Do you have lots of thoughts or memories about the adverse event that you don't want to have?	Yes	No
2. Do you have bad dreams about the adverse event?	Yes	No
3. Do you feel or act as if the adverse event is about to happen again?	Yes	No
4. Do you have bodily reactions (such as a fast-beating heart, stomach churning, sweating and feeling dizzy) when reminded of the adverse event?	Yes	No
5. Do you have trouble falling or staying asleep?	Yes	No
6. Do you feel grumpy or lose your temper?	Yes	No
7. Do you feel upset by reminders of the adverse event?	Yes	No
8. Do you have a hard time paying attention?	Yes	No
9. Are you on the "look-out" for possible dangerous things that might happen to yourself and others?	Yes	No
10. When things happen by surprise or all of a sudden, does it make you "jump"?	Yes	No

Section D

POST-TRAUMATIC GROWTH INVENTORY

Indicate for each of the statements below the degree to which this change occurred in your life as a result of the crisis/disaster, 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.

Possible Areas of Growth and Change	0	1	2	3	4	5
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.						

APPENDIX M: TURNITIN REPORT

Dissertation

by RMM (Reginald) Mahlatji

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Dissertation

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STUDENT PAPERS

APPENDIX N: DECLARATION OF PROFESSIONAL EDITING



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14 September 2022

Declaration of professional editing

**LIFE ADVERSITIES, TRAUMATIC STRESS, AND POST-TRAUMATIC GROWTH OF HIGH SCHOOL LEARNERS
IN SOUTH AFRICA**

By

Reginald Modipi Mpho Mahlatji

I declare that I have edited and proofread this thesis. My involvement was restricted to language usage and spelling, completeness and consistency and referencing style. I did no structural re-writing of the content.

I am qualified to have done such editing, being in possession of a Bachelor's degree with a major in English, having taught English to matriculation, and having a Certificate in Copy Editing from the University of Cape Town. I have edited more than 300 Masters and Doctoral theses, as well as articles, books and reports.

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Sincerely,

A handwritten signature in black ink, appearing to read 'J Baumgardt'.

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