THE MODERATING ROLE OF PERCEIVED SOCIAL SUPPORT IN THE RELATI ONSHIP BETWEEN ADVERSITIES AND MENTAL HEALTH OF HIV/AIDS- RELA TED ORPHANS IN MAFIKENG

PALESA MORUBANE (18047130)

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Mini-dissertation (article format) submitted in partial fulfilment of the requirements for the de gree in Masters of Social Sciences in Clinical Psychology of the North West University

(Mafikeng Campus)

Supervisor: Prof E. S.Idemudia

Co-Supervisor: Dr M. P. Maepa

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DEDICATION

This study is dedicated to my family, especially my mother, Motlalepula Morubane,

Whose unfaltering love, encouragement, sacrifices and support over many years has always b

een a great inspiration

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PREFACE

Article format

For the purpose of this dissertation, as part of the requirements for a professional master's deg ree, the article format, as described by General Regulation A.7.5.1.b of the North West Unive rsity, was chosen.

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The targeted journal for submission of the current manuscript is Journal of AIDS Care. For th e purpose of examination, Tables are included in the text.

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Sections of Books: Cohen CP 1998. United Nations convention on rights of the child: releva nce for indigenous children. In: DK Bherea (Ed.): *Children and Childhood in Contemporary Societies*. Delhi: kamla-Raj Enterprises, pp. 173-187.

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Work "in press": BhasinVeena 2004. Economic pursuits and strategies of survival among Da mor of Rajasthan. *J Hum Ecol*, (in press).

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THE MODERATING ROLE OF PERCEIVED SOCIAL SUPPORT IN THE RELATI ONSHIP BETWEEN ADVERSITIES AND MENTAL HEALTH OF HIV/AIDS-RELA TED ORPHANS IN MAFIKENG

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THE MODERATING ROLE OF PERCEIVED SOCIAL SUPPORT IN THE RELATIONSHIP BETWEEN ADVERSITIES AND MENTAL HEALTH OF HIV/AIDS-RELATED ORPHANS IN MAFIKENG

Abstract

Aim: The study aimed at exploring the moderating role of perceived social support in the relationship between mental health and adversities of HIV/AIDS- related orphans in Mafikeng.

Method: A cross-sectional research was conducted and three hundred and twenty one participants were purposively selected from two orphanage centres and two secondary schools in Mafikeng (orphans and non- orphans).Orphans were 121 (male= 66, female= 55), and non-orphans were 200 (male= 115, female= 85) between 10 to 20 years of age.Data was collected using Child Abuse Trauma Scale (CAT- Scale), General Health Questionnaire (GHQ28), and Multi-Dimensional Perceived Social Support Scale (MPSS).

Results: The findings of the study indicated that there was a statistically significant negative relationship between child abuse and trauma (r= -.492, p= .01); and perceived social support. Results also indicated that there was a significant positive relationship between child abuse and trauma (r= .423, p= .01); and mental health. As predicted, perceived social support moderated the relationship between adversities and mental health (R^2 = 0.09, DF(1, 320) = 7.697, p< 0.001). Therefore, as perceived social support increases, it lessens the probability of high mental health scores, even when adversitiesis high or low.

Conclusion: Adversities have a significant negative relationship with perceived social support, and adversities also have a significant positive relationship with mental health. Perceived social support moderate the relationship between adversities and mental health.

Introduction and problem statement

According to UNAIDS (2014), there are approximately 35 million people worldwide living w ith HIV/AIDS. More than two-thirds (70%) of all people living with HIV, 24.7 million, live i n sub-Saharan Africa- including 91% of the world's HIV-positive children (UNAIDS Gap Re port, 2014). Statistics South Africa (2014), indicates that the total number of persons living w ith HIV in South Africa increased from an estimated 4,09 million in 2002 to 5,51 million by 2 014. UNAIDS fact sheet (2014), revealed that an estimated 1.1 million adults and children di ed of AIDS, accounting for 73% of the world's AIDS deaths in 2013. It is estimated that 17.8 million children under 18 have been orphaned by AIDS (AIDS Orphan, 2013). In addition, t he United Nations Children's Fund (UNICEF, 2013), reported that 15.1 million of these orph aned children live in sub-Saharan Africa, with 63% in South Africa.

The United Nations Children's Fund (UNICEF, 1999) and the Joint United Nations Program me on HIV and AIDS (UNAIDS, 2008), define an orphan as any child below the age of 18, t hat has lost at least one parent. This loss of parent makes a child who is orphaned more vulne rable, and in need of adult care (Akwara et al., 2010). In consistence with the definition of U NAIDS (2008) and UNECA (2011), HIV/AIDS orphan is defined for the purpose of this stud y as a child under 20 years of age who has lost one or both parents to HIV/AIDS-related illne ss.

Nyberg et al. (2012) indicated thatthe impact of losing a parent due to HIV/AIDSmay include a series of stressful life events such as the loss of parental care and protection, decreased acc ess to schooling and health care, food security, increased child labour, increased risk of abuse , exploitation, risk of HIV infection, psychosocial distress, stigma, discrimination, and impov erishment.

Orphanhood can be traumatic for a child, and this can expose a child to countlessadversities . Adversity can be defined as an extremely unfavourable experience or event; a difficulty, da

nger or state of affliction, which implies a lack of well-being (Gehrling & Memmott, 2008). F or children, adversity can be the experience of life events and circumstances which may com bine to threaten healthy development (Daniel, 2010). According to Kimani, Mutua, Chesire a nd Chebet (2012), the death of a parent is often followed by inadequate guidance, emotiona l support, socialization, educational support, nutrition, material and financial support. For th ese reasons, HIV/AIDS orphans end up in several destinations like extended families, guardia ns' homes, orphanages and some turning to the streets (Guo, Li & Sherr, 2012).

As already indicated, adversities faced by HIV/AIDS orphans due to the parents' death, may have negative consequences for their psychosocial well-being (Kaggwa and Hindin, 2010). It can therefore be argued that orphans are susceptible to more mental health challenges tha n non- orphans. These mental health problems related to HIV/AIDS orphans include psychol ogical symptoms such as posttraumatic stress, anxiety and depression (Nyamukapa et al., 20 10; Cluver,Orkin, Gardner, & Boyes, 2012). In support of that, many studies have identified hi gh levels of mental health problems among HIV/ AIDS orphans, and showed that there is an i ncreasing evidence that mental health problem is associated with adversities they are faced wi th due to parental loss (Doku, 2010; Traube et al., 2010; Cluver, Gardner & Operario, 2009). Furthermore, studies reveal that AIDS-orphaned children have higher depression, anxiety and posttraumatic stress disorder as compared to other orphans and non-orphans, and that HIV/A IDS-related stigma is a risk factor for those outcomes (Boyes & Cluver, 2013; Cluver, Orkin, Gardner & Boyes, 2012). De Witt and Lesling (2010) highlighted that many orphans did not cope as well as could be expected despite their material needs being met and this suggested th at psychological problems may be responsible.

It is clear that existing research on mental health of HIV/AIDS orphans highlights that these c hildren need intervention. It is important that alternative strategies that will serve as protectiv

e factors for their mental health, are discovered and brought in to assist in preventing or mini mising the risks of mental health problems.

Among the variables that are positively associated with children's mental health, perceived so cial support is gaining increasing attention. There is good evidence that social support plays a n important role in mental health. For example, Wang et al., (2012) reported that perceived so cial support such as future expectations and trusting relationship with caregivers, significantly mediated links between risk factors such as stigma and exposure to adverse situations, and de pression.Moreover, a study conducted by Desilva et al., (2012) indicated that perceived social support played a protective role, as it was associated with lower risks of anxiety and depressi on symptoms, lower oppositional levels, and heightened self-esteem and resilience.

Although the moderating role of social support on adversities is evident in previous studies, much less studies have focused on identifying social support as it moderates the relationship between adversities and mental health among HIV/AIDS-related orphans; and thus the presen t study aims to close the identified gap.

Aim of the study

The aim of the study was to explore the moderating role of perceived social support in the rel ationship between adversities and mental health of HIV/AIDS orphans in Mafikeng, North-W est Province.

Objectives

- To explore the difference between orphans and non- orphans onadversities, mental

health, and perceived social support.

- To explore the moderating role of perceived social support on adversities and mental health of orphans.
- To assess gender differences of orphans on adversities, mental health and perceived social support.

Significance of the study

Conclusions drawn from this moderating study will have practical significance for the orphan age centres, caregivers, community, children and adolescents who are orphaned by HIV/AIDS by increasing awareness of how adversities they face may predispose them to mental health problems, as well as the influence of perceived social support. Thereby, it will assist the orphanages.

The study will also be beneficial to the orphanage centers, caregivers, community, children and adolescents who are HIV/AIDS orphans by giving insight on whether or not perceived social support can act as a moderator between the relationship between adversities and mental health. By doing so, the study will contribute towards the planning of future intervention strategies that focus more on strengthening social support.

Recommendations from this study may assist in the development of policies and strategies to minimize the mental health needs of HIV/AIDS- related orphans. Psychologists will be able to identify and diagnose mental health needs of this vulnerable population when providing psychological services to them.

Theoretically, it will add on to the existing literature on mental health by introducing the role of perceived social support as a moderator of the relationship between adversities and mental health, as many researchers have not yet explored this area. The study will also project variou

s adversities endured by HIV/AIDS- related orphans in Mafikeng and their perception of soci al support. Limitations of this study will give direction to future researchers by identifying ot her gaps that still need to be researched.

Methodologically, this study will increase knowledge and the use of moderation approach in t he methodology of future studies by demonstrating the relevance and applicability of moderat ion analysis when studying adversities and mental health. By so doing, researchers will not o nly focus on the influence of one variable on another, but will also look at variables that are li kely to act as moderators between two variables.

Theoretical background

The study was conceptualized within the following theories: Adversity theory, The Biopsych osocial model, Buffer theory, and Gender theory. The theories are explained in detail below.

- Adversity theory

The study adopted the adversity theory by Haidt (2006), to give an explanation of how advers ity may play a role in the proneness of mental health problems.The theory postulates that peo ple are able to experience posttraumatic growth rather than post-traumatic stress after they ex perience significant adversity. Haidt (2006), posits that people can experience post traumatic growth following adversity and that people must endure adversity for growth. Furthermore, th e theory postulates that adversity in the twenties and thirties may best position an individual f or growth, however, adversity experienced earlier or laterin life,has the likelihood to result in post-traumatic stress (Haidt, 2006).

This study is directly linked to the last statement of the theory which says, when one undergo es major stress early or late in life, then it is likely not to result in growth but post-traumatic st

ress. Walsh et al. (2014), also agreethat an adverse psychosocial environment in the childhoo d years significantly increases the risk for later psychopathology.

HIV/AIDS orphans used in this study are younger than twenty years. Thus, according to Haid t (2006), they are more likely to experience post -traumatic stress and other emotional and ps ychological scarring following adversity. These adversities may be: abuse, poverty, neglect, e xploitation, and heading households. Therefore, this theory supports our assumption that, adv ersities negatively affect the mental health of HIV/AIDS-related orphans.

With this theory, we argue that HIV/AIDS orphans will report higher scores on adversities an d therefore score high on the mental health measure, than non-orphans. This would be becaus e orphans experience many challenges, losing a parent being an adversity on its own; as comp ared to non-orphans and that would increase their likelihood of developing psychological pro blems later in life.

- The Biopsychosocial model

As the WHO (2012) puts it, many factors come together to affect the well-being of individual s and societies. Health is determined by circumstances and environment people find themselv es in. Factors such as our genetic makeup,where we live, surroundings,economic status and e ducational level, and the relationships we have with friends and family all have significanteff ects on health (Marya, 2011). The biopsychosocial model of disease can better explain how th ese factors affect one’s mental health.

The biopsychosocial model of disease is a framework developed by Engle (1980), which state s that biological, psychological, and social factors are all involved in the causes of health and disease. In other words, it is the interaction between one's genetic makeup, behaviour, and so ciocultural environment that contribute to both health and disorder.

Many disorders have a biological basis in the form of genetic vulnerability or disposition. For example, some children are most likely to develop a mental disorder such as schizophrenia m ainly because there is a history of the disorder in the family. As research also reveals, if one monozygotic twin develops schizophrenia, there is at least a 60% chance the co-twin will also develop the disorder (Churbanov, 2013). The psychological part looks for potential psycholo gical bases for a health problem such as emotional disturbance and distorted thinking (Nursin g Theories, 2013). According to Liu (2011), psychosocial factors can cause a biological effect by predisposing an individual to risk factors. An example is that the death of a beloved may not cause liver damage by itself, but a grieving person may be more likely use excessive alco hol as a coping mechanism, and therefore end up with liver damage.

As for the social part of the model,it investigates how various social aspects such as socioeco nomic standing, religion, values and principlescan influence health (Upton, 2012). For instanc e, losing parents may place one at risk of poverty, financial stress and illness. The purpose of this model is simply to make us understand that each one of these factors is not sufficient to b ring about health or illness, but the interaction between them is what determines health or illn ess. In the case of HIV/AIDS orphans, in relation to the theory, we argue that because health and wellness are caused by a complex interaction of biological, psychological, and sociocultu ral factors therefore, adversities will have an impact on one's mental health.

According to this study, HIV/AIDS- related orphans may find challenges in almost all aspects of their lives. They may be emotionally and psychologically traumatized by the loss of their parents, end up in poverty, sufferchild abuse and neglect, get exploited and be vulnerable to o ther illnesses, and all of this may negatively impact the mental health of the orphans.

- Buffering hypothesis theory

The buffer theory proposes that social support moderates the power of psychosocial adversity

to cause incidences of illness (Alloway, 1987). Social support, according to the buffering hy pothesis, acts as a resource with the ability to ease or prevent a stress reaction by making thre atened individuals feel more capable of dealing with the stressor in their lives (Cohen & McK ay, 1984).

Lack of social support and lower perceived ability of social support have been associatedwith symptoms of depression among HIV/AIDS orphans (Uchino, Bowen, Carlisie, & Birmingha m,2012; Zhao et al., 2011). In addition, social support has proved to be a moderator of mental health symptoms among HIV/AIDS related orphans (Puffer et al., 2012).

According to Cohen and Wills (1985), social support provided by families, friends and signifi cant others can protect an individual from those stressful events which are potentially capable of causing a disease.Orphans may be lacking in social support due to ill parents and death of loved ones.Theymay also have negative perceptions of themselves and others and that may le ad to lower perceptions of social support (Cluver, Fincham & Seedat, 2009). Cohen and Wills (1985), further posited that support is needed from people within the social environment whe n there are elevatedstress levels to assist with coping. It could be support from an intimate fri end, school-friend, teacher or a family member.

According to Tomich and Helgeson (2002), something as simple as social relationships can el evate the mood, make one feel like they belong, and be a source of companionship to share e vents of our lives with, which in turn can lead to animproved quality of life. In addition, Cohe n & Wills (1985),hypothesized that lack of positive social relationships leads to poor psychol ogical well-being such as depression and anxiety. In turn, anxiety and depression may impact physical health, either in a direct effect orthrough physiological processes that influence susc eptibility to disease. This theory is used to support the assumption that HIV/AIDS-orphans ar e most likely to face adverse situations, following their parents' death, which may impact thei

r mental health, but if they have suitable perceived social support, their stress effect willbe m oderated,as compared to those who may not have any social support.

- Gender Schema theory

The study uses gender schema theory to explain the gender variable.The gender schema theor y by Bem (1981) stipulates that males and females learn to process new information in their e nvironment based on masculinity or feminism.Once children have developed this schema, soc iety also expects them to behave in ways consistent with traditional gender roles. Children int ernalise these messages and grow up with the notion that, what males can do females cannot do; or what is applicable and suitable for the other sex does not apply on the other counterpart . They also believe that masculinity is more highly valued than feminism. For example, gende r disparities have been reported regarding the spread of HIV. Women reported that men refus ed to use condoms and they respected and accepted their decision as they are superior to them , and that puts them in a powerless position of being unable to protect themselves from the dis ease (Joubert-Wallis & Fourie, 2009).Therefore, the theory indicates that the impact of orpha nhood may differ by gender due to the socialization of a child. Thus we hypothesize that fem ales are more vulnerable to poor mental health than males.

Literature Review

Adversities faced by HIV/AIDS orphans

A wide range of adversities, including physical, emotional and sexual abuse, are known to be predictors of many forms of mental ill health (Read & Bentall, 2012). According to Pacione e t al., (2012), adversity can take various forms for orphans, such as vulnerability, family dysfu nction and environmental stressors. All of these may threaten children’s development and im

pact their mental health. Becoming orphaned, child- headed households and child labour, all e xpose children to possibly harmful environmental stress (Nyamukapa, Gregson, Wambe & M ushore, 2010). The death of a parent to AIDS can often leave children vulnerable to illness, a buse, neglect, and mistreatment. In addition, it also exposes them to economic burden, stigma , and withdrawal from school (Cluver & Orkin, 2009).

After parents' death, these children are now faced with new responsibilities and work. Tom a nd Mudhovozi (2014), highlighted that responsibilities and work, both within and outside of t he household, increaseintensely when parents die. Due to these new responsibilities, some chi ldren are forced into dangerous labour, exploitation, abuse and neglect while others migrate t o threatening environments, such as street dwellings and urban centres (Nyberg et al., 2012). Furthermore, orphaned children are often forced into abusive situations and exploitative empl oyment in an attempt to negotiate their survival (Cluver, Gardner & Operario, 2008). Many c hildren are forced into sex work, thereby exposing themselves to significant physical and psy chological risks (Cluver, Orkins, Boyes, Gardner & Francizka, 2011).

According to Motene (2009), children can suffer child abuse and neglect, long before they are orphaned as a result of the ill parent. Eventually, when their parents die, they are then suppos ed to adapt to a new life, with little and at times no social support, and may suffer exploitatio n and abuse.

- Child abuse

Several factors leading to poor psychological functioning of HIV/AIDS orphans include abus e (Lata & Verma, 2013).According to Meinck et al., (2015), there is evidence from Africa tha t indicates high rates of child abuse, with rates being ashigh as 64% for physical abuse. Other studies also confirm that orphaned children report experiences of physical abuse.For example , disclosures of physical abuse among HIV/AIDS-orphans were indicated in several studies (

Harms et al., 2010; Seloilwe & Thupayagale-Tshweneagae, 2009; Thurman & Kidman, 2011; Ballet, Sirven, Bhukuth & Rousseau, 2011). Cluver et al., (2011) and Meinck, Cluver, Boyes & Ndhlovu, (2013), investigated severe physical abuse of vulnerable children in areas with h igh HIV incidence in South Africa. Their findings revealed that physical abuse was6% among AIDS-orphaned children, which was evidence of high levels of child abuse in families affect ed byAIDS. In contrast, in a systematic review and meta- analysis (Nichols et al., 2014) it wa s revealed that orphans were 4% less likely to experience physical abuse compared to non-orp hans.

Emotional abuse was indicated in a study conducted by Morantz et al., (2013). The findings r evealed that 27% of orphaned children experienced emotional abuse which included being hu miliated, threatened by caregivers,bullying and rejection by the biological children of the care giver, and exposure to domestic violence. Orphans reported being threatened and made to fee l like a burden (Harms et al., 2010). Furthermore, it is revealed that this abuse was often direc ted towards the loss of their parents.

For sexual abuse, some studies (Meinck et al., 2015; Nyamukapa et al., 2008, 2010; Pascoe et al., 2010), revealed that orphans are vulnerable to sexual abuse. They reported experiences of sexual abuse by family members, as well as being forced into prostitution by caregivers or be cause of poverty (Cluver& Gardner, 2007; Mmari, 2011; Mojola, 2011; Seloilwe & Thupaya gale-Tshweneagae, 2009).

- Maltreatment

Orphans are most often cared for by their relatives and may have been subjected to child malt reatment by family members (Morantz and Heymann, 2010; Cluver & Gardner, 2007).The fi ndings indicated intra-household discrimination being the main maltreatment among orphans, including being treated less well than other children by the caregivers' biological children. Th

is involved being deprived of resources such as food, clothing and schooling or being made to engage in excess chores or paid work. In addition, some studies also reported severe material deprivation of HIVAIDS orphans, such as hunger, tattered clothing and inadequate conditions (Funkquist, Eriksson & Muula, 2007). Furthermore, research also indicate experiences of explicit neglect (Cluver & Gardner, 2007;Nyamukapa et al., 2010), with reports including being left alone at home or locked in a shack.

Mental health of orphans

The death of parents introduces major changes in the life of a childincluding disrupted family functioning, moving in with relatives, child-heading households,socioeconomic status, and poverty.All these changes easily affect the psychological well-being of a child. According to Guterman, Cameron & Hahon (in Doku, 2012), parental deaths are traumatic for anyone, but it becomes worse for children as it is relatedto negative physical and psychosocial problems. For HIV/AIDS orphans, the impact could be even worse because HIV/AIDS is a highly stigmatized phenomenon (Gilbert& Walker, 2010; Cluver & Gardner, 2007). The literature indicate that possible factors such as abuse, family malfunctioning, stigma and discrimination pose psychological problems on HIV/AIDS orphans (Lata & Verma, 2013; & Lin et al., 2010). Further, childhood abuse and maltreatment are linked to poor mental health (Read & Bentall, 2012). As already indicated above, abuse among orphans is reported high and acts as a risk factor for the likelihood of mental health problems later in life.

A systematic review of empirical studies on HIV/AIDS and orphans found that orphaned children often have negative psychological and physical outcomes (Chi et al., 2013). In addition, elevated levels of psychological distress in orphans, including anxiety, depressive symptoms, anger, loneliness, low self- esteem, social withdrawal, hopelessness, suicidality, post-traumati

c stress symptoms and sleep problems(Lin et al., 2010;Cluver et al., 2007; Ruiz-Casares, Tho mbs, & Rousseau, 2009; Zhaoet al., 2009; Cluver & Gardner, 2007)were reported. Recent stu dies also revealed high levels of anxiety, post-traumatic stress and depression among HIV/AI DS orphans (Kumar et al., 2014; Chi et al., 2014; Sharer, Cluver & Shields, 2015;Kuo et al., 2013). Furthermore, Yendork and Somhlaba (2015) revealed that orphans reported high anxie ty symptoms compared to non-orphans but there were no differences between orphaned child ren and non-orphans on symptoms of depression. On the other hand, Desilva et al., (2012) an d Govender et al., (2014),found anxiety and depression to be low for both AIDS orphans and non- orphans.

In another study conducted by Cluver and Gardner (2006), HIV/AIDS orphans were more lik ely to have marked concentration difficulties and to report frequent somatic symptoms.In add ition, Zhao et al., (2010) and Atwine et al., (2005) indicated that HIV/AIDS orphans scored hi gh for feelings of loneliness, hopelessness and suicidal ideation. Furthermore, Desilva (2012) also revealed that orphans were more likely to report being very ill compared to non-orphans.

Gender

There is a disparity in the levels of suffering that orphans face according to their gender. Nab unya and Ssewamala (2014) report that within the household, both boys and girls experiencei ncreased responsibilities. They both reported having to do more household chores, however, orphaned girls were more likely to report taking care of small children than boys.Evans (2007) also indicated that both girls and boys experience decreased school participation following p arents' death.

Francis-Chizororo (2010), revealed that girls are more disadvantaged because they are usuall y the first in the household to drop out of school, care for younger siblings and take on many

adult tasks.In the case of childhood abuse,Zapata et al., (2013) reported that physical and sex ual abuse is more prevalent in girl orphans compared to boy orphans.

Some studies on mental health and gender differences were inconsistent. For example, Desilv a et al., (2012) and Thurman and Kidman (2014), found girls to report more anxiety, depressi on and behavioural symptoms as compared to boys; while Kaggwa and Hindin, (2010) and H e and Ji (2007), reported heightened depression and hopelessness among boys but not girls.H owever, some studies did not find any gender difference(Nyamukapa et al., 2010; Onuoha & Munakata, 2010; Li et al., 2009). Furthermore, Nyamukapa et al., (2008), concluded that HIV /AIDS orphanhood is negatively associated with children's psychological wellbeing regardles s of gender.

Perceived social support

Social support acts as a buffer against stressful life events, that is, if an individual has a perce ption that they arecared for, esteemed, loved, valued and belong to jointly equal relationships (Cohen & Wills, 1985). Cobb (1976), also suggests that social support indirectly strengthensa sense of well-being by lessening the effects of stress and enhancing coping skills.In support of that, there are several studies conducted in South Africa that indicate that social support ca n help individuals cope better with different challenges. For example: Casale, (2012); and Nd lovu, Jon & Carvalhal, (2010), revealed that social support helps families manage with socioe conomic and emotional challenges related to HIV/AIDS. Other studies highlighted higher lev els of social support to be linked with low death rates, and enhanced quality of life among the bereaved (Holt- Lunstad, Smith& Layton, 2010; Ke, Liu & Li, 2010).

Integration in a social network helps one to manoeuvre through traumatic experiences and the refore reducing the chances of poor well-being. Caregivers, siblings and special people in AI DS orphans' lives can be effective sources of social support for them, which may help to pro mote psychological well-being (Okawa et al., 2010). This is supported by the study conducte d byCluver, Fincham & Seedat, (2009), which revealed that perceived social support has been linked with less symptoms of post-traumatic stress among AIDS orphans.Adamson and Rob y, (2011) also reported thatperceived social support is positively linked with the mental health of AIDS orphans.

The literature indicates that there is availability of social support for orphans. For example, H ong et al. (2010) examined the relationship between perceived social support and psychosocia l wellbeing among HIV/AIDS orphans. The results suggested that vulnerable children had the lowest level of perceived social support compared to HIV/AIDS orphans and non-orphans. T his could be because most orphans are cared for by their grandparents, and it is revealed that

extended families serve as an important source of care and support for them (Avabratha, Kod avanji & Vaid, 2011). However, the grandparents are said to be in their mid-60s in age which may raise concern about their ability to physically and financially care for young fostered chil dren (Beegle, et al. 2010). Therefore, it is essential that orphans receive adequate social suppo rt as it is reported by Orban et al., (2010) that orphans also view social support as the most he lpful coping strategies.

Hypotheses

1. There will be a significant difference betweenorphans and non- orphans on adversities, mental health and perceived social support.
2. Perceived social support will moderate the relationship between adversities and mental health of orphans.
3. Female orphans will report high adversities and therefore, report high on mental health than male orphans.

Methodology

Study Design

This study was based on a cross sectional design within a quantitative research approach. T his method is a study design in which data are collected for all the variables of interest using one sample at one time (Adler & Clark, 2015). According to Aparasu and Bentley (2015), thi s study design is often used descriptively to capture information about a population, but may also be used to examine associations between an independent and dependent variable. The ind ependent variable in this study is adversities (child abuse and trauma) and dependent variab le is mental health. The moderating variable is perceived social support.

Sampling

Purposive sampling was used to select both groups, the reason being that, it is the only viable sampling technique in obtaining information from a very specific group of people such as or phaned adolescents. It is a limited number of individuals who possess the trait of interest, su ch as age and gender (orphans/non- orphans).

From the register list at orphanage centres and schools, where the participants were drawn, the sample size was purposefully selected by age, sex and those who have parents or not, t o ensure the representation of these important demographic variables. Those who had lost parents due to other reasons besides HIV/AIDS were excluded. The age cutoff was based on the ability to answer questionnaires as it was 4th grade English. The representation of both s exes was insured as the study wanted to check for gender differences.

Participants

A total sample of 321 participants (Orphans = 121 and Non-orphans = 200) were selected to participate in the study. The participants were ‘HIV/AIDS- related orphans’ from the two orp

hanage centres in Mafikeng; and non– orphans were leaners from two Secondary schools, lo cated in Mafikeng, in the North West Province, South Africa.

The demographic representations of the participants are as follows: orphans were (N=121) while Non- orphans (200). Non-orphans had more males: 115 (57.5%) and females: 85 (42.5 %), as compared to orphans who had males 66 (54.5%) and females 55 (45.5%). Participants, according to age, orphans' mean age is 14.1 (SD= 2.09) with the Range = 10 – 20 years whil e non- orphans' mean age is 15.2 (SD= 1.75) with the Range = 10 -18 years. The majority of t he orphans come from the rural areas (81%), while non-orphans also have a majority numbe r (91.5%) staying in rural areas. Orphans have at least a grade eight level of education (66.9 %) as well as non- orphan (51.5%). All the orphans did not have biological fathers and very f ew (2.5%) have biological mothers, while non-orphans who have biological fathers are 55.5 % with a majority 85.0% having biological mothers.

Orphans reported that they at least have brothers (63.6%) and sisters (62.0%). Very few of t hem reported to have a paternal grandfather (14%), paternal grandmother (28.1%), matern al grandfather (23.1%) or maternal grandmother (38.8%). They at least have uncles (40.5%) and aunts (43.0%). Non- orphans reported that they at least have brothers (64.5%) and siste rs (63.5%). Very few of them reported to have a paternal grandfather (15%), paternal grand mother (20.5%), maternal grandfather (20.0%) or maternal grandmother (14.5%). They at le ast have uncles (34.0%) and aunts (28.0%). Orphans who have the highest number of people staying in a household are (38.8%) while non- orphans are (40.5%).

Instruments and psychometric properties

The instruments that were used to measure variables of interest were the Child Abuse Trau

ma Scale (CAT- Scale), General Health Questionnaire (GHQ28), and Multi-Dimensional Percei ved Social Support Scale (MPSS). The description of each instrument follows next.

- The Childhood Abuse and Trauma Scale (CAT-scale)

This questionnaire was developed by Sanders and Becker-Lausen (1995). The scale consists of thirty-eight items to assess various forms of childhood physical, sexual, emotional, and m altreatment abuse. The frequency of each experience is rated on a 5- point Likert scale, rang ing from 0= "never" to 4= "always". The measure contains three subscales: Negative Home Environment/Neglect (NEG), Sexual Abuse (SA) and Punishment (PUN).

A total score can be derived by summing item frequency scores and dividing by the total sco res range from 0- 4, with higher scores reflecting greater childhood trauma (Schember, 2007). The Cronbach's alpha for the scale was found to be .90 and test-retest reliability was .89 (Sanders & Becker-Lausen, 1995).The reliabilityof this scale was tested for the present study and the Cronbach's alpha was .88.

- General Health Questionnaire (GHQ-28)

The General Health Questionnaire (GHQ-28) by Goldberg and Allison (1995), was used to ass ess mental health. It is a 28 items scale which consists of four subscales (somatic complaints, anxiety and insomnia, social dysfunction and depression), using a 4 point likert scoring form at (strongly disagree = to strongly agree = 4). It is used to assess psychological well-being in t he general population and within community. Any individual that scores between 0-42 is reg arded as having good mental health while the ones that score between 43-84 are considere d as having poor mental health.The reliabilityof this scale was tested for the present study a nd the Cronbach's alpha was .79.

- Multidimensional scale of perceived social support (MPSS)

The Multidimensional scale of perceived social support(MSPSS) by Zimet, Dahlem, Zimet, an d Farley (1988) is used to measure social support. It consists of 12 items that provide assess ment of three sources of support: family (FA), friends (FR), and significant other (SO). The ite ms directly addressing social support are divided into factor groups relating to the source of the support (i.e., Family, Friends, or significant others), each of these group consists of four i tems.Cronbach's coefficient alphafor the whole scale was found to be 0.94. The reliabilityof this scale was tested for the present study and the Cronbach's alpha was .75.

Procedure

The schools and orphanage centres were contacted telephonically to request a meeting wit h the managers. Appointment dates were set for a personal meeting to explain what the st udy was about and how they could be of assistance. Consent was obtained from the school authorities and orphanage manager, dates and time of data collection were communicated t o all concerned. On the dates of collection, learners and orphans who were selected from th e information list by the researcher together with the School Heads and Centre Managers, a ccording to the requirements (age, gender and if they are orphans/non- orphans) of the stu dy were invited to participate in the study. As far as the orphans are concerned, before they were invited for participation in the study, the manager of the centres screened the questio nnaire to avoid harmful questions and no such questions were found.

Data collection took six (6) days because collection was done at two centres and children ca me on different days depending on their age group. Each centre filled questionnaires for thr ee (3) days. Administration of the questionnaires took place from 09h00-13h30, under the s

upervision of 2 guardians from both centers, four research students who were assisting with data collection and the researcher.

At the schools, data collection took place from 8h30-11h00. Administration of the questionnaires took place during regular classes under the supervision of the researcher, two research assistants, and two teachers appointed by the school principal to assist. Data collection took eight (8) days and each school filled questionnaires for four (4) days.

Ethical considerations

Ethical approval was granted by the North-West University Ethics Committee (NWU- 00028-14- A9), and the permission to collect data was obtained from the orphanage center's manager and the Department of Education.

Consent was obtained from the center manager, on behalf of the orphans. As far as the non-orphans (learners) are concerned; before they could take part in the study they were given consent forms to take home to parents. On the dates of collection, questions were thoroughly explained by the researcher. The participants were assured that the information they provide would be treated with confidentiality and that they may not disclose their identity anywhere in the questionnaires. Participants were informed that they may withdraw from the study anytime if they want to and they will not be penalized in any way.

Furthermore, there was a debriefing session arranged for participants who may have been emotionally provoked by the completion of the questionnaires in order to deal with any emotional reactions that could arise, as a means of protecting participants from harm. After completion of questionnaires, all participants were thanked for their cooperation and participation.

Data analysis

In this study, data was analyzed using Statistical Package of Social Sciences Software (SPSS) v ersion 9.5. An independent sample t-test was used to test hypothesis 1, while hypothesis 2 was tested using a moderated hierarchical multiple regression analyses and correlation anal ysis. Hypothesis 3 also used independent sample t-test.

Results

This study was intended to investigate the relationship between adversities and mental heal th and the moderating role of perceived social support among HIV/AIDS-related orphans in Mafikeng. An independent t-test (Table 2) was conducted to test hypothesis one and the res ults are presented below.

Hypothesis 1: There will be a significant difference between orphans and non-orphans onad versities, mental health, and perceived social support.

TABLE 1: Comparison of adversities, mental health and perceived social support between orphans and non- orphans

Variables	Orphans (N=121)		Non-Orphans (N=200)				
	X-bar	SD	X-bar	SD	t	df	p
Child Abuse and Trauma	30.0	20.5	30.5	20.2	.194	319	ns
Mental Health	58.8	11.2	56.7	12.2	-1.54	319	ns
Perceived Social Support	66.0	11.1	64.8	11.3	-.952	319	ns

The results did not reveal a significant statistical difference on adversities (t = 194; df =319; p = n.s), mental health (t = -1.54; df =319; p = n.s), and perceived social support (t = -.952; df =319; p = n.s) between HIV/AIDS orphans and non-orphans. However, looking into the descr iptive statistics, HIV/AIDS orphans scored lower on adversities ($\overline{X}$ = 30.0, SD = 20.05), tha n non- orphans who scored higher on adversities ($\overline{X}$ = 30.5, SD= 20.2). On mental health, HI V/AIDS orphans scored higher ($\overline{X}$ = 58.8, SD = 11.2), than non-orphans who scored lower o n mental health ($\overline{X}$ = 56.7, SD= 12.2). HIV/AIDS orphans scored higher on perceived social s upport ($\overline{X}$ = 66.0, SD = 11.1), than non- orphans who scored lower on perceived social supp

ort ($\overline{X}$ = 64.8, SD= 11.3).The study hypothesis was thus rejected.

Hypothesis 2: Perceived social support will moderate the relationship between adversities an d mental health of orphans.

A correlational analysis was used for the prediction of values which will be appointed in hier archical multiple moderated regression analysis. See Table 2A

TABLE 2A: Inter-correlation between study variables (n= 321)

Variables	1 (PSS)	2 (MH)	3 (CAT)	4 (SEX)	M	SD
1. PSS	-	-.136	-.492**	.164	66.0	11.1
2. MH		-	.423**	.131	58.8	11.2
3. CAT			-	.116	30.0	20.5
4. Sex				-	1.6	2.1

KEY:

PSS= Perceived Social Support; MH= Mental Health; CAT= Child Abuse and Trauma.

The results in Table 3A above revealed that mental health (r= -.136) showed a non-significant relationship with perceived social support. This means, being a high or low scorer on mental health does not decrease perceived social support. Additionally, the results showed that there was a significantnegative relationship between child abuse and trauma (r= -.492, p= .01),and perceived social support. This means, as child abuse and trauma increase, perceived social su pport decreases. However, sex (r= .164), showed a non-significant relationship with perceive

d social support. This means being male or female does not decrease or increase perceived so cial support.

The results also indicated that there was a significant positive relationship between child abu se and trauma (r= .423, p= .01); and mental health. This means as child abuse increases, ment al health also increases. Additionally,sex (r= .131) showed no significant relationship with m ental health, meaning being male or female does not decrease or increase mental health. Furth ermore, the results indicated that sex (r= .116) showed no significant relationship with child a buse and trauma. This means,being male or female does not decrease or increase child abuse and trauma.

Hypothesis two expected perceived social support to moderate the relationship between adver sities and mental healthand hence, a correlational analysis was firstly conducted (Table 2A), t hen a hierarchical multiple regression was carried out to test these hypotheses. The variables were entered step wise and the results generated three models. The results are presented belo w (Table 2B).

TABLE 2B: Moderated Hierarchical Multiple Regression

Models	R	R^2	Adj	$R^2\Delta$	R^2F	ΔF	B	Std. Err	Beta	t
Model 1	.446	.199	.178	.178	8.26**	9.66**				
Adversities							.255	.052	.47	4.92**
Model 2.431	.185	.172	.185	13.43**		9.43**				
Social Support							.096	.096	.10	.99**
Model 3.468	.219	.191	.009	7.697**	2.737**					
Adversities x Social Support							-.005	.004	-.56	-1.38*

In the first step, mental health was regressed on adversities. In the second step, mental health was regressed on perceived social support. The last step was the product of adversities and pe rceived social support (i.e., the interaction term) was entered. The standardized regression coe fficient for the interaction term was statistically significant, $\beta = -0.56$, $p < 0.05$. The change in R^2 was also statistically significant, $R^2 = 0.09$, $DF(1, 320) = 7.697$, $p < 0.001$, indicating that, after controlling for adversities and perceived social support, the interaction term explained a bout 1% of unique variance in mental health. This means that perceived social support signifi cantly moderated the relationship between adversities and mental health of HIV/AIDS- relate d orphans. Thus, hypothesis 2 was accepted.

Hypothesis 3: Female orphans will report high adversities and therefore, report higher on me ntal health than male orphans.

TABLE 3: Gender differences on adversities (child abuse and trauma) and mental health of orphans.

Variables	Male Orphans (N=66)		Female Orphans (N=55)				
	X-bar	SD	X-bar	SD	t	df	p
Child Abuse and Trauma	27.8	19.2	32.6	21.8	-1.275	119	ns
Mental Health	57.5	9.2	60.4	13.1	-1.445	119	ns

The results did not reveal a significant statistical difference between male and female HIV/AI DS orphans on adversities (t = -1.275; df = 119; p = n.s), and mental health(t = -1.445; df = 1 19; p = n.s). However, looking into the descriptive statistics, HIV/AIDS female orphans score d higher on adversities ($\overline{X}$ = 32.6, SD = 21.8), than HIV/AIDS male orphans who scored lo wer on adversities ($\overline{X}$ = 27.8, SD= 19.2). On mental health, HIV/AIDS female orphans score d higher on mental health ($\overline{X}$ = 60.4, SD= 13.1), than HIV/AIDS male orphans who scored lo wer on mental health ($\overline{X}$ = 57.5, SD = 9.2). Hypothesis 3 was thus rejected.

Discussion of results

Hypothesis one: Differences between orphans and non- orphanson adversities, mental health, and perceived social support

The study did not find any difference between orphans and non-orphans on adversities, menta l health and perceived social support as hypothesized. Even though the current research result s did not reach an acceptable level of statistical significance, the descriptive statistics indicate d that orphans reported low on adversities, but they reported high levels of poor mental health and perceived social support compared to non-orphans.Orphans reported low level of adversi ties compared to non- orphans. This finding is in line with previous research (Nichols et al., 2 014), which revealed that orphans were 4% less likely to experience physical abuse compared to non- orphans.

Orphans also reported high mental health compared to non-orphans. This is in line with Chi e t al., (2013), who revealed that orphans have high levels of poor mental health compared to n on- orphans. The findingsindicated that orphaned children often have negative psychological and physical outcomes.As in the current study, HIV/AIDS orphans reported high levels of me ntal health compared to non- orphans. But because HIV/AIDS orphans reported low on adver sities, it was expected that they would report low levels of poor mental health as it is common ly known that less adversities suggests low risk for poor mental health. The reason that might best explain why orphans reported high levels of poor mental health could be because they ar e vulnerable in nature and as such are susceptible to poor mental health.

Moreover, HIV/AIDS orphans reported high on perceived social support. This finding is in li ne with the work of Hong et al., (2010), who reported that orphans scored higher perceived so cial support than orphans. In the current study, the results could be clarified by the fact that m ore orphans reported that they live with their brothers, sisters, uncles and aunts. This is consis

tent with the work of Avabratha, Kodavanji and Vaid(2011), which revealed that extended fa milies serve as an important source of care and support for AIDS orphans.

Hypothesis two: The moderating role of perceived social support in the relationship between adversities and mental health problems.

The second hypothesis which stated that perceived social support will moderate the relation ship between adversities and mental health of HIV/AIDS related orphaned adolescents was accepted. This means that perceived social support buffers the relationship between adversitie s and mental health of HIV/AIDS- related orphans. The findings of this study are similar to th ose of Casale (2011), and Ndlovu, Jon and Carvalhal (2010), which revealed that social suppo rt helps families cope with financial and emotional challenges related to HIV/AIDS and other stressors. This finding is also consistent with the work of Adamson and Roby (2011), which i ndicated that perceived social support is positively associated with the psychological well-bei ng of AIDS orphans.

Cobb (1976) suggested that social support indirectly strengthens a sense of well-being by less ening the effects of stress and enhancing coping skills.The link between social support and m ental healthis well establishedin existing research. For example, Cluver, Fincham and Seedat (2009), reported that perceived social support was associated with fewer symptoms of post-tr aumatic stress disorder among AIDS-orphaned children and adolescents.Lack of social suppo rt and lower perceived social support have been linked to symptoms of depression. Desilva et al., (2012), indicated that perceived social support was a protective factor, as it was associate d with lower odds of anxiety and depression symptoms, oppositional behaviour, and greater s elf-esteem and resilience.

Even though orphans reported high on perceived social support, they still reported poormen

tal health as compared to non-orphans. This could be related to the work of Cluver et al., (20 09), suggesting that orphans may have distorted thoughts of themselves and others, which of i tself may lead to reduced perceptions of social support and high mental health. Differential-su sceptibility theory (Zuckerman, 1999) can also account for these findings.The theory argues that some individualsare more susceptible than others to adverse effects of negative experi ences due to their biological makeup, while others are simply not impacted by adversities.T herefore, the reason orphans may have reported higher on poor mental health despite repo rting high on perceived social support could be because they are biologically susceptible to p oor psychological well- being.

Hypothesis three: gender differences on mental health problem, and adversities between male and female orphans

The third hypothesis stated that female orphans will report a high level of adversities and me ntal health compared to male orphans. The findings suggest that HIV/AIDS orphans, despite t heir gender, are on equally comparable levels of mental health, and adversities (i.e., trauma and child abuse). This may be because they have both lost their parents and are exposed to the same situation. As highlighted in the work of Nabunya and Ssewamala (2014),in the hou sehold, both boys and girls experience increased responsibilities. Contrarily, Francis-Chizoror o (2010), argues that girls are more disadvantaged because they are usually the first in the ho usehold to drop out of school, care for younger siblings and take on many adult tasks.

Although the findings were not in the predicted direction, nevertheless, there were some diffe rences on the measures. Child abuse was reported high among female adolescents as compare d to male adolescents. This is in line with thefindings from a study conducted by Okello et al. , (2014), which showed that, female HIV/AIDS orphans reported high levels of adversities an d poor mental health when compared to male orphans. Zapata et al., (2013), also reported t

hat physical and sexual abuse are more prevalent in girl orphans compared to boy orphans.T his supports the findings which indicated that female orphans reported high levels of advers ities compared to male orphans. Moreover, the study revealed that female HIV/AIDS orphan s reported high levels of poor mental health compared to male orphans.This finding is consist ent with the work of Okawa, Yasuoka, Ishikawa, Poudel, Ragi and Jimba (2011) who reporte d that female orphans reported high levels of perceived social support compared to boy orpha ns. In the current study, the results could be clarified by the fact that more participants reporte d that they have more grandmothers and aunts than grandfathers and uncles. It is thus presum ed that a girl child could easily relate to grandmothers and aunts and therefore receive more s upport compared to a boy child.

Conclusion

It can be concluded that perceived social support operated as a moderating factor in the rel ationship between adversities and mental health of orphaned adolescents. However, in the context ofMafikeng,there is no difference in the above mentioned variables; neither does ge nder play a role. This means that both males and females suffer the same level of mental he alth effects, following adverse situations. And that non-orphans and orphans are not doing d ifferently according to adversities and mental health status.

Implication of findings

The findings of this study indicate that there is no significant difference between orphans an d non-orphans on adversities, mental health and social support. The findings also indicate th at there are no gender differences among HIV/AIDS orphans on adversities and mental healt h. Furthermore, the results indicated that perceived social support moderated the relations hip between adversities and mental health. Therefore, professionals involved in working wit h HIV/AIDS orphans need to use this information when treating them, so as to develop relev ant strategies that generate social support for them. The results suggest that interventions a imed at helping HIV/AIDS orphans and other children, need to consider that adversities are experienced by all children and that poor mental would be the result. The interventions also need not be gender specific. Such interventions should include strengthening social support , minimising adversities and mental health problems.

Limitations

This study had its own limitations:

- The length of the questionnaire, which might have influenced the high scores or low scores on the measures as the participants seemed tired.
- The study focused on orphanage centres in the Mafikeng area and therefore, the study cannot be generalized to other regions.
- Participants were predominantly male and this affected the generalizability of the study's results to the general population regarding gender.

- The data used was collected from orphans only and they could have over reported or under reported on the measures. The study would have benefited from additional data from the caregivers. Future research could ensure that data be collected from both orphans and their caregivers.
- Another limitation was that some of the orphans were not present at the orphanage centres during the days of data collection, therefore some questionnaires were unanswered, reducing the desired population size.

Recommendations

Following the findings discussed above, the following recommendations are made:

- Results have indicated the importance for perceived social support, thus suggesting that not only should AIDS orphans be provided with tools for survival, but for orphans and other children as well, to help them pass through the early developmental stages more easily.

- Psychologists, social workers, teachers and other professionals who work closely with AIDS orphans and other vulnerable populations, should strengthen social support to minimize the risks of these children developing mental health problems in adulthood.

- Future research may focus on this similar topic following the transition of these orphaned adolescents to their young adulthood phase, exploring more on their resilience, with data collected from both orphans and theircaregivers. In that case, it will be helpful to track how they turn out as adults and if the effects of social support were evident.

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Appendices

Appendix 1: Demographic attributes

1. **Sex:** Male

   Female

2. **Age:**

3. **Place of birth**: Urban

   Rural

4. **Race:** Black

   White

   Colored/Mixed race

   Indian/Asian

5. **Level of School**

6. **Who are the people who live in your household for the better part of the year? Please mark all the individuals who live in your household for the better part of the year.**

Biological father

Biological Mother

Step-father

Step-mother

Brothers

Sisters

Paternal grandfather

Maternal grandfather

Paternal grandmother

Maternal grandmother

Uncles

Aunts

Lodgers

Other (specify)

7. **In what type of place do you stay?**

8. **How many people stay in the household?**

Appendix 2: Childhood Traumatic Events Scale

For the following questions, answer each item that is relevant. Be as honest as you can. Each question refers to any event that you may have experienced.

Write "1" if it was**Not at all**
Write "4" if it was**Neutral**
Write "7" if it was **Extreme**

1. Did you experience a death of a very close friend or family member? _____
If yes, how old were you? _____
If yes, how traumatic was this? _____
If yes, how much did you confide in others about this traumatic experience at the time? ____ _____

2. Prior to the age of 17, was there a major upheaval between your parents (such as divorce, s eparation)?_____
If yes, how old were you?_____
If yes, how traumatic was this?_____
If yes, how much did you confide in others? _____

3. Prior to the age of 17, did you have a traumatic sexual experience (raped, molested, etc.)?_ _____
If yes, how old were you?_____
If yes, how traumatic was this? _____
If yes, how much did you confide in others? _____

4. Prior to the age of 17, were you the victim of violence (child abuse, mugged or assaulted, a ny other thing, other than sexual)?_____
If yes, how old were you?_____
If yes, how traumatic was this? _____
If yes, how much did you confide in others? _____

5. Prior to the age of 17, were you extremely ill or injured?_____
If yes, how old were you?_____
If yes, how traumatic was this? _____
If yes, how much did you confide in others? _____

6. Prior to the age of 17, did you experience any other major upheaval that you think may hav e shaped your life or personality significantly?_____
If yes, how old were you?_____
If yes, what was the event? _____
_____

If yes, how traumatic was this? _____
If yes, how much did you confide in others? _____

Appendix 3: General Health Questionnaire (GHQ28)

We would like to know if you have had any medical complaints and how your health has bee n in general, over the last few weeks. Please answer ALL the questions by writing the answer which best applies to you in the open space. Remember that we want to know about **PRESE NT** and **RECENT** complaints, not those that you have had in the past.

It is important that you try to answer **ALL** the questions.

1. Better than usual

2. Same as usual

3. Worse than usual

4. Much worse than usual

1. Have you been feeling well and in good health? _____

2. Have you been feeling in need of a good energizer? _____

3. Have you been feeling run down and out of sorts?

4. Have you been feeling that you are ill? _____

5. Have you been getting pains in your head? _____

6. Have you been getting a feeling of tightness or pressure in the head? _____

7. Have you been having hot or cold spells? _____

8. Have you lost much sleep over worry? _____

9. Have you been having difficulty staying asleep once you are in bed?

_____

10. Have you been feeling constantly under strain? _____

11. Have you been feeling edgy and short-tempered? _____

12 Have you been getting scared and panicky for no good reason? _____

13. Have you been finding everything getting on top of you? _____

14. Have you been feeling nervous and strung-up all the time? _____

15. Have you been managing to keep yourself busy and occupied? _____

16. Have you been taking longer to finish things you do? _____

17. Have you been feeling that overall, you were doing things well? _____

18. Have you been satisfied with the way you carry out a task? _____

19. Have you been feeling that you are playing a useful part/role in things? _____

20. Have you been feeling capable of making decisions about things? _____

21. Have you been able to enjoy your normal day-to-day activities? _____

22. Have you been thinking of yourself as a worthless person? _____

23. Have you been feeling that life is entirely hopeless? _____

24. Have you been feeling that life is not worth living? _____

25. Have you thought of the possibility that you might make away with yourself? _____

26. Have you been finding that at times you could not do anything because your nerves were so bad? _____

27. Have you been finding yourself wishing you were dead and away from it all? _____

28. Have you been finding that the idea of taking your own life kept coming into your mind?

_____

Appendix 4: Multidimensional Scale of Perceived Social Support

We are interested in how you feel about the following statements. Read each statement carefu lly. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree

Circle the "2" if you Strongly Disagree

Circle the "3" if you Mildly Disagree

Circle the "4" if you are Neutral

Circle the "5" if you Mildly Agree

Circle the "6" if you Strongly Agree

Circle the "7" if you Very Strongly Agree

1.There is a special person who is around when I am in need.	1 2 3 4 5 6 7
2. There is a special person with whom I can share joys and sorrows.	1 2 3 4 5 6 7
3.My family really tries to help me.	1 2 3 4 5 6 7
4.I get the emotional help & support I need from my family.	1 2 3 4 5 6 7
5. I have a special person who is a real source of comfort to me.	1 2 3 4 5 6 7
6. My friends really try to help me.	1 2 3 4 5 6 7
7. I can count on my friends when things go wrong.	1 2 3 4 5 6 7
8. I can talk about my problems with my family.	1 2 3 4 5 6 7
9. I have friends with whom I can share my joys and sorrows.	1 2 3 4 5 6 7
10. There is a special person in my life who cares about my feelings.	1 2 3 4 5 6 7
11. My family is willing to help me make decisions.	1 2 3 4 5 6 7
12. I can talk about my problems with my friends.	1 2 3 4 5 6 7