Resilience among Children Exposed to Traumatic Loss.

A Study of Children Orphaned by AIDS in Addis Ababa, Ethiopia.

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ABSTRACT

Title: Resilience among Children exposed to Traumatic Loss: a Study of Children Orphaned by AIDS in Addis Ababa, Ethiopia.

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Objective: While traumatic parental loss presents an undeniable risk factor for maladaptive outcomes, some groups of children appear to manifest successful adaptation and do not follow a negative developmental pathway. The purpose of the present study was to test to what degree children orphaned by AIDS demonstrate resilience. **Method:** The self-report version of the strengths and difficulties questionnaire for children age ranging from 11-16 (SDQ S11-16), and a background information inventory were filled in by 148 children orphaned by AIDS. The participants were recruited from two elementary and junior high schools namely, Addis Hiwot (*New Life*) Community School and *Ketchenie* Junior High Schools. **Results:** The majority of children showed resilience measured by their scores on emotional symptoms, conduct problems, hyperactivity, and prosocial behaviors and total difficulties scores. Boys showed higher emotional resilience. Younger children were found to be more resilient than older children. Paternal orphans were more resilient than maternal and double orphans. Securing good support from immediate caregivers was significantly related to scores within the normal range on emotional symptoms, hyperactivity, peer problems, prosocial behavior and total difficulties. Warm relationships promote resilience among children exposed to trauma. The present study indicated that friendships were central to resilience among children exposed to trauma. Being liked by friends was a significant factor for emotional stability and lower scores on the level of hyperactivity and total difficulties. Having a very good relationship with other children was significantly related to lower score on emotional symptoms, peer problems and total difficulties implying higher rate of resilience. Having one or more good friends was significantly related to lower scores on peer problems and total difficulties. **Conclusion**: This study has brought to light that Ethiopian children orphaned by AIDS demonstrate resilience if they have the right peer and familial social dynamics.

Key words: resilience, trauma, parental loss, AIDS orphans, SDQ.

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1. INTRODUCTION

1.1 Background: HIV/AIDS in Ethiopia

Ethiopia is one of the poorest countries in the world with an average income of 120 US dollars and over 45 % of the total population living below the poverty line of a dollar a day earning (NBE, 2008). Hunger, disease, illiteracy, poverty and child malnutrition are some of the terms that are frequently used to describe the living conditions of children in Ethiopia. There are quite a lot of economic and infrastructural limitations that impinge up on children's normal growth and development. The majority of children lack basic needs such as food, health care, housing, education, and a safe and healthy environment (National Bank of Ethiopia, 2008; Ministry of Health, 2006).

The seriousness of the HIV/AIDS epidemic in Ethiopia is widely acknowledged. Ethiopia is among the countries most heavily affected by the HIV/AIDS epidemic with the third largest population of HIV infected persons living in Africa. AIDS has become a major health and development problem in Ethiopia (MOH, 2004; 2006). Since the reporting of first HIV infections in 1984 and AIDS cases in 1986, the problem has evolved into a generalized epidemic. AIDS is now the leading cause of morbidity and mortality among adults in Ethiopia (Garbus, 2003). The HIV/AIDS epidemic increased rapidly during the 1990s. By 1989, HIV prevalence among the general adult population was estimated at 2.7 percent, increasing to 7.1% in 1997 and to 7.3 percent in 2000 (City Administration Health Bureau, 2001). In 2003 and 2004, the prevalence rate was estimated to be 4.4 % and 4.6% respectively (MOH, 2004).

In addition, it is estimated that there are around 700,000 children under the age of 17 who have lost either one or both parents to AIDS. Ethiopia is classified (along with Nigeria, China, India, and Russia) as belonging to the "next wave countries" with large populations at risk from HIV infection, which will eclipse the current focal point of the epidemic in central and southern Africa (MOH, 2006). It is currently estimated that more than 2.5 million people are living with HIV/AIDS and this is a huge challenge to cope with for a resource poor and institutionally fragile country. Recent estimates indicate some encouraging signs that the epidemic is progressing at a slower rate. However, still the current prevalence is a staggering number to cope with for the least developing country (MOH, 2006).

HIV prevalence in Addis Ababa was estimated at 14.5 percent and 11.7 percent for the years 2004 and 2005 respectively. HIV/AIDS continues to take its toll on families in Ethiopia, especially in the country's capital, Addis Ababa. Recent estimates report that 1 in 5 adults are HIV positive. Although HIV/AIDS is primarily a disease associated with adults, its impact on children is staggering as evidenced by the fact that half a million children have become orphans as a result of losing their parents to AIDS. Beyond the trauma of losing their parents to AIDS, orphaned children find themselves without shelter, food, education or basic care. Your support ensures that children orphaned by AIDS get the help they need. Because of the rapid expansion of HIV/AIDS in Addis Ababa, for 2003 and 2004, the number of maternal AIDS orphans were estimated to be 55,000 and 59, 000 respectively. The number of paternal AIDS orphans for the respective years were 48,000 and 52,000 and double orphans were 24,000 and 26,000 (MOH, 2004). In 2005, it was estimated that there were a total of 109,130 AIDS orphans in Addis Ababa (MOH, 2006). The total number of AIDS orphans in Ethiopia is projected to increase until 2020 although the rate of increase is expected to lessen due to the impact of the planned Antiretroviral Treatment (ART) services (MOH, 2006).

The issue of care for children is contained in various policy documents of the Federal Democratic Republic of Ethiopia (FDRE). Firstly, the Constitution of the FDRE stipulates in Article 36 that every child has the right to be cared for by his or her parents or legal guardians; not to be subject to exploitative practices, neither to be required nor permitted to perform work which may be hazardous or harmful to his or her education, health or well-being; to be free of corporal punishment or cruel and inhumane treatment in schools and other institutions responsible for the care of children. The Constitution of FDRE provides a basis for the protection of orphans and vulnerable children (OVC). Article 36 on the rights of the child stipulates that the Government of Ethiopia shall accord special protection to orphans and shall encourage the establishment of institutions that ensure and promote and advance their welfare, and education. Secondly, Ethiopia has signed and ratified the UN Convention on the Rights of the Child (UNCRC) in 1992 and incorporated the provisions of the convention into the constitution of the country. Besides, a National Plan of Action for children, which includes a section on the protection of orphan and vulnerable children, has been put in place in 2004. The strategic framework for the national response to HIV/AIDS in Ethiopia for 2004-2010 has been formulated. It addresses the provision of care and support for children infected and affected by HIV among other key areas. That includes guidelines for childcare institutions, for community based childcare support programs, for child-family reunification, for foster family care and for adoption (FDRE, 2004).

The implementation of such policies is of course dependent on government priorities and decision-making. Government policy prioritizes the health and physical infrastructural sectors, which it considers critical for its development strategy. Competing priorities such as chronic and recurring food security have also meant that the rising numbers of orphaned and vulnerable children have been given low priority. Safety net programs run by government and NGOs primarily assist households facing food related emergencies. There is therefore limited national social safety net program for orphans and vulnerable children. Consequently, the services rendered to orphans and vulnerable children are minimal and inadequate (Forum for Street Children Ethiopia, 2004).

1.2 The study location

The area where the present study took place is located in *Gullele* Sub City of the Addis Ababa City Government in a neighborhood locally known as *ketchene,* situated in the Northwestern suburb of Addis Ababa. According to Tefera (2001), the neighbourhood is among the most congested urban slums in the city of Addis Ababa. Most families in this community are extremely poor, and are struggling to survive. The community has over the years been considered the lowest caste in Ethiopia. Almost every family earns its living by weaving, clay work and other home based handicraft activities. The economic situation in the neighborhood is beyond tragic; the main source of livelihood is through the production and sale of pottery and hand-woven artifacts for a meager earning of less than a dollar a day. Because of the economic hardships that neighborhood is known for its influx in commercial sex trade as a means for its occupants to supplement their income which contributed to the high prevalence of HIV/AIDS infection in the area. Whilst the levels of promiscuity are alarmingly high, the rate of contraception use is discouragingly low. In developing countries like Ethiopia the high level of poverty and inadequate public government services aggravates the situation of children orphaned by AIDS deaths (Melese, 2001).

According to a report from the Sub City Government HIV/AIDS Prevention and Control Desk (2006), an estimated 16 % of the population in *Ketchene* live with HIV/AIDS. The number of registered HIV/AIDS orphans in the area were close to 2,204 of which 1,163 were females and 1,041 males. According to the report, the area is one of the most economically impoverished and socially and educationally disadvantaged areas in Addis Ababa. A common situation is that grand parents and relatives look after several children orphaned by AIDS. The area is

characterized by a community spirit, with extended families taking care of orphans where they can (Tefera, 2001; Melese, 2001).

1.3 AIDS induced orphanhood and its traumatic implications

An AIDS orphan is defined by UNAIDS as a child under 16 years of age who has lost a parent or both parents to AIDS (UNICEF/UNAIDS, 2001). This thesis adopts UNAIDS's definition. Thus a maternal orphan is a child under age 16 whose mother has died from AIDS; a paternal orphan is a child under 16 whose father has died from the disease; a double or dual orphan is a child under 16 whose parents have both died from AIDS.

The question of who should be categorized as an orphan is contested in the literature. Some researchers like Meintjes and Giess (2006) contend that placing maternal, paternal, and double orphans in one general category of orphans raises questions of children's varying experiences of orphanhood. According to Stein (2005), orphanhood has been associated with lack of care, high risk of malnutrition, stunting, socio emotional problems and stigma and discrimination. The issue here is, whether it is right to categorize single orphans with parents and double orphans with grand parents with in a loving relationship with in the category of orphans (Skinner et. al 2004). Some researchers argue, therefore, that the term orphan should apply, theretofore, to a group of children, with no biological parents and who have no extended line of social support.

Of the many factors that accentuate children's vulnerabilities, the most important ones are lack of care and affection, adequate shelter, education, nutrition, and psychological support. Although children exposed too many facets of deprivation and poverty are vulnerable, children who have lost their parents may be particularly vulnerable, because they do not have the emotional and physical maturity to adequately address and bear the psychological trauma associated with parental loss (Meintjes and Giese, 2006). Losing a parent when one is a young child usually means the loss of one's primary caregiver and attachment figure (Bowlby, 1969, Tremblay, 1998). Zimmerman (2005) categorized children as orphans and vulnerable when they have parents or caregivers who are ill or dying, do not have parents, do not have a family, and/or do not have a home. The category also includes children who live in an area with high HIV prevalence and children who live on the streets. In addition, those children who are exploited or abused; are discriminated against; and/or are at risk of social exclusion are grouped under this domain (Zimmerman, 2005). Parental loss is thought to be one of the most traumatic experiences a child can go through. In line with this, Bowlby's (1969) theory of attachment

demonstrates the potentially pathological consequences of parental loss. Bowlby recognized that grief and morning occur among children because of death of a parent. The experience of loss of a parent is considered as a potential antecedent for the development of personalities prone to depression and other mental health disturbances (Goldberg, 2000 and Bowlby, 1997).

Trauma is often understood in the context of posttraumatic stress disorder, as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). It is referred to as a psychological reaction to a distressing event that is outside the range of usual human experiences (APA, 2000). Traumatic experiences may provoke intense feelings of terror, horror, or helplessness in children and adolescents. The most severe traumatic experiences involve witnessing serious injury or the death of significant others, imminent threats of serious injury or death, or a violation of personal physical integrity (Portnova, 2007; Cournos, 2002; and Thompson, 1998). The DSM-IV-TR (APA, 2000) indicates that traumatic events can include a wide range of occurrences that are experienced or witnessed.

Reaction to trauma may differ dependent on whether the trauma result from of single-event or long-term exposure to extreme external events. Single event trauma, can evoke reactions typical of stress disorder such as avoidant behavior, and antisocial episodes. Children exposed to long-term trauma frequently experience fundamental personality changes. These changes are often associated with denial, repression, and dissociation that could imply absence of resilience (Doka, 2000). According to Cournos (2002), children and youth describe reactions that are associated with posttraumatic stress, such as recurrent and intrusive traumatic thoughts, having nightmares, being anxious and nervous, and not feeling as close to others as one used to (McAdam-Crisp, 2006). According to the same researcher, traumatized children show symptoms such as a sense of confusion, temper tantrums, crying and regressive behaviors.

According to Stein (2005), children who lose their parents to AIDS are exposed to trauma because there are typically months or years of stress, suffering or depression before their death. In addition, the risk is exacerbated by the prejudice and social exclusion directed at individuals with HIV and their families. The distress and social isolation experienced by children, both before and after the death of their parent or parents is aggravated by the rejection that often threatens these children (Garbus, 2003 and CAHB, 2001).

In the study location the stigma and discrimination associated with AIDS heighten the likelihood of persistent traumatic experience. In Addis Ababa, according to Gabrus (2003),

stigma and discrimination continue to accompany the HIV/AIDS epidemic. Children whose parents have died due to AIDS are not immune from stigmatization. Children begin to be rejected early as their parents fall ill with AIDS. Some children may be teased because their parents have AIDS, while others may lose their friends because it is assumed that proximity can spread the virus. The preoccupation with the illness or death of their parents, the isolation due to the loss of friends, and the undertaking of additional work that comes with caring for ill parents or supporting oneself after one's parents has died makes AIDS orphans go through a persistent traumatic experience. According to Abebe (2008) stigma is the primary cause of social isolation, a sense of shame and a lack of emotional and financial support after the death of a parent from AIDS. This only serves to add to the feelings of anger, sadness, and hopelessness that they may feel after witnessing their parents slowly and painfully die. In line with this, Heggenhougen et. al (2004) found that AIDS orphans were more likely to be stigmatized by peers at schools, by adults at home and by teachers at school than orphans due to non-AIDS cases.

1. 4 The construct of resilience

Resilience is broadly understood as positive adaptation in circumstances where difficulties such as personal, familial and /or environmental are so extreme that we would expect a person's cognitive and emotional functions to be impaired. Resilience might be understood as the capacity to bounce back. Resilience is thus highly relevant in relation to the development of positive outcomes and healthy personal characteristics among children who have lost their parent(s) to HIV/AIDS (Bonanno, 2004). Resilience is, in this context, understood as adaptive functioning across multiple life domains following significant exposure to adversity (Bonanno, 2002; 2004; Shannon, et. al., 2007).

The construct of resilience presupposes that there must have been a risk or stressful experience at some point in the individual's lifetime (McGloin and Widom, 2001). Several definitions of resilience include some form of adaptive functioning following significant exposure to risk. Exposure to risk is central to any understanding of resilience because without such experiences, psychopathological outcomes are far less likely, so the construct loses much of its meaning. Accordingly, some form of risk exposure is necessary to infer resilience or resilience related processes (Shannon, et. al., 2007; Bonanno, 2004).

Risk factors refer to circumstances that increase the probability of a maladaptive state in

children's personality like exposure to traumatic parental loss at the time of childhood (McPherson et. al., 1998). Risk constitutes those social and economic factors as well as other characteristics of the child's environment that have been demonstrated to place children at increased likelihood of developing chronic physical, developmental, behavioural, or emotional conditions. These include HIV/AIDS induced parental loss, parental loss of any kind, extreme poverty, absence of social support, and child abuse or neglect and so on (Payne et. al., 1999).

There is disagreement regarding the measurement of the construct of resilience. According to McGloin and Widom (2001) there is widespread confusion in relation to the variables of resilience, the criteria of successful resilience and the type and length of exposure to stress necessary for resilience behaviour. According to Bonanno (2004), resilience is a dynamic process that cannot be captured by observation of a single trait. He states that the construct should be thought of as a comprehensive outcome of development from traumatic life circumstances over time. McGloin and Widom (2001), however, object to this assertion on the ground that it leaves many at risk children non-resilient because the definition is too stringent. They go on to add that that is mainly the rationale why many research outcomes emphasise the negative consequences instead of the positive outcomes. By requiring a high threshold for resilience, researchers have often excluded the vast majority of children exposed to trauma and situations of adversity. Researchers have for example tended to focus on the detrimental effects of child maltreatment and trauma (Stein, 2005; Brisch, 2002; Prayor et. al, 2001; Prayor et. al, 2001; Dyregrov, 1991; Kilbride, 1985 and Bowlby, 1980).

According to McGloin and Widom (2001) researchers have used the following criteria to verify resilience: performing at least above average in school, having no suicide risk, no history of emotional and social problems, no history of marijuana use, and infrequent or no use of alcohol or tobacco; displaying good quality of sleep, and being stable (McGloin and Widom, 2001); and not being depressed in combination with having good levels of self-esteem. Part of being resilient is to have good mental health. Mental health involves balancing the different aspects of life: the physical, intellectual, social, emotional and spiritual. It involves our ability to think, feel, act and interact in such a way that we can enjoy our lives and cope with the challenges that arise (McGloin and Widom, 2001).

Children have a great capacity to demonstrate resilience when facing difficult or life threatening situations. It has been found that school age children at late childhood stage in

particular have a large repertoire of resilience strategies to draw upon in handling death and crisis situations (Dyregrov, 1991). If properly guided, resilient children can actualize their inner potentials that make them more adjusted and adopted.

1.5 Factors associated with resilience

The impact of losing parents in childhood must be examined in the context of other contributing factors. The impact of early parental loss is embedded within the context of many important situational and relational variables, which affect the bereaved child's adaptation to loss. The following personal and external factors have been found to be associated with resilience.

1.5.1 Gender

Gender plays an important role in how children adjust. This is true during and after the time of the death of a parent. Multiple studies have shown that boys and girls react differently to the loss of a parent (Koskelainen et. al., 2001; Losel and Bliesener, 1994 and Dyregrov, 1991).

Studies have shown that girls are more expressive of their feelings related to loss, while boys generally refrain from showing their feelings (Dyregrov, 1991). Boys seem to have an especially difficult time with dealing with the loss of a parent, causing them to experience trouble at school, withdraw from social interactions, or start fights with peers. Dyregrov (1991) and Losel and Bliesener (1994) found that the deficit in social adjustment associated with loss of a parent was greater for boys than for girls. According to the same researchers, boys lacked the environmental support available to girls. Loss of a parent was associated with greater conduct problems among boys than girls. Boys showed higher scores on overall psychological difficulties, with more aggressive and acting out behavior than bereaved girls did. The literature indicates that boys appear more vulnerable to loss than do girls (Dyregrov, 1991).

Girls on the other hand, exhibit more internalizing symptoms, whether assessed by immediate caregivers or by their teachers (Downdey, 2000). According to Worden (1996) and Koskelainen et. al., (2001) bereaved girls in comparison to boys displayed higher rates of psychological problems such as depression and anxiety. In their studies, McGloin and Widom (2001) found that females were more successful across domains of functioning such as in education and social activity. They had a higher mean number of domains in which success was met, and were more likely to meet the criterion for overall resilience than males.

1.5.2 Age

The behavioral reaction of orphaned children is associated with their age group. In his study of orphaned children, Dyregrov (1991) stated that younger children (aged less than 12) might not show an intense reaction to loss because of their lack of a clear understanding of abstractions such as the finality and irreversibility of death.

Because of their understanding of the irreversible nature of death, older children, however, may feel vulnerable for fear that their lifeline could be in danger of being cut. Episodes of aggressive outbursts as well as depressive symptoms are common if loss occurs at this stage of life in development. Older children may also have trouble concentrating at school (Dyregrov, 1991). Other behavioral responses demonstrated by school age children include withdrawal, concentration and learning difficulties, phobic behaviors, and excessive care giving tendencies (Dyregrov, 1991). Payne et. al. (1999) also found reactions such as bodily distress, idealization, panic, guilt, and hostile reactions to the deceased and others. Adolescents often act out and get into trouble as a reaction to loss. The aggression could be directed against God, other adults, friends, or towards themselves (Dyregrov, 1991).

1.5.3 Time of loss

Child bereavement studies describe how the impacts of loss show dynamism along with passage of time after the death of a parent(s). According to Worden (1996) the first four months of parental loss are characterized by lower self esteem, more difficulty speaking about the dead parent and as a consequence a predominance of passive coping styles. Archer (1999) studied the immediate aftermath of the death of a parent during childhood. Studying children aged from 10 to 16 who lost their fathers, he reported that crying, expressions of longing, anger and protest was the initial indicators of grief.

At one year after death, Worden (1996) observed frequent episodes of anxiety concerning personal safety and uneasiness among the bereaved children. At the second year, children may develop coping styles though there still is high levels of sadness and grief present. At this point in time, there were more signs of realistic perceptions of the loss (Archer, 1999).

1. 5. 4 Type of orphanhood

Henderson (2006) has pointed out that researchers' understanding of type orphanhood vary according to whether a child has lost either one or both of their parents. Dual or double orphans

are those children who lost both of their parents, while maternal and paternal orphans are those who lost their mothers and fathers respectively.

Meintjes and Giese (2006) in their study indicated that paternal orphans living with their surviving mothers were better off in terms of care and material support than maternal and double orphans. Orphans cared for by their fathers were more often found to report poor care, heavy workloads and greater neglect of their basic needs than orphans under maternal care. Orphans residing with their fathers often experience severe hardship in terms of care deprivation. Similarly, according to Oleke (2006), maternal orphans and double orphans appear to be particularly vulnerable, often being dependent on care from a woman with whom he or she may have no emotional ties.

1. 5. 5 Familial networks and dynamics

Early works of Bowlby (1969; 1973; and 1980) and Ainsworth (Ainsworth, 1982; Ainsworth and Bowlby, 1991; and Ainsworth et. al., 1978) emphasized the impact of the primary relationship between the child and the mother or primary care givers on the behavior of the child in ways that influence later relationships and interactions with the environment. Bowlby based his study on observations of children in childcare institutions and children who experienced severe forms of human deprivations, war, separation, loss and isolation. Bowlby and others considered the importance of the bond between a child and his or her parents for the child's sense of security and personality development (Barnett et. al, 1999).

Studies highlight the importance of social support as a buffer and independent predictor for resilience after trauma (Klein 2001; Crosnoe and Elder, 2004; Subbarao and Coury, 2004; and Condly, 2006). The social arena of individual interaction and experiences shapes the degree to which individuals can develop their abilities and realize their potentials. Parents, immediate caregivers, teachers, guardians and anyone in a close relationship who spends a great deal of time with the child are influencing child development. Hundeide (2005) shed light on the influential role of positive and warm face-to-face interactions between children and significant others in shaping children's socio-emotional development in time of childhood adversity.

In order to develop intellectually, emotionally, socially, and morally a child requires participation with one or more persons with whom the child develops a strong, mutual, emotional attachment. This person should be committed to the child's well-being and

development, preferably for life. The establishment of pleasant interpersonal attachment in the family accelerate the child's psychological growth. This growth of course depend to a substantial degree on the availability and involvement of another adult, a third party who assists, encourages, spells off, gives status to, and expresses admiration and affection for the person caring for and engaging in joint activity with the child (Hundeide, 2005)

As they grow up, peers and school are likely to become significant factors in a child's life. Parental death due to AIDS is an excellent example of ecological change in a microsystem. The contexts of social networks in extended families, kinship ties, communities are important in the life of orphans to accommodate the ecological disruptions caused by parental loss. Children trust and enjoy secure attachments to others that promote their confidence that people will be there for them. This confidence helps children to develop relationships and a network of supportive others which they can draw on when difficulties arise. Such relationships may serve as a buffer during adversity and create opportunities for positive interaction and experiences. Since resilient children feel that they belong within their family, home, school and community, they are more likely to participate actively in decision making processes. Kirwin et. al. (2005) in this context have also indicated the importance of social networking for a healthy and adjusted socio emotional development. According to their findings, family structure and dynamics after the loss of parents played a significant role in the child's adjustment to loss. Those family members often playing an influential role in the child's life include the siblings, extended family members and other caregivers such as grand parents, great grand parents, aunts and uncles. It has been found that the active involvement of family networks can serve as a buffer against behavioral dysfunctions for children (Klein, 2001).

In line with this, Payne et. al., (1999) studied patterns of family functioning and children's coping of parental loss in four classes of families which they identified as supportive (high cohesiveness, resolved conflict effectively, hostile (high conflict), sullen (poor cohesion and limited expressiveness) and ordinary (intermediate level of cohesion). Their study found that in the supportive and conflict-resolving families, grief tended to decrease and children showed more resilience; in sullen families, children underwent more depressive episodes. Similarly Scudder et. al. (2008) indicated the impact of supportive and caring relationships for the presence of youth resilience.

Orphans who live with their grandmothers in a caring relationship, both maternal and paternal, in general express positive attitudes about their life (Oleke et. al., 2006). In their study,

grandmothers showed more compassion and less discrimination than any other category of carers, in spite of the fact that they were often the individuals least able to satisfy the essential material needs of the orphans (Oleke et. al., 2006).

1. 5. 6 Peer networks and dynamics

Children spend more time than younger children with peers, and their friendships show greater levels of intimacy and support (Ladd, 1990). He also contends that the single best childhood predictor of adaptation is the adequacy with which the child gets along with other children. According to the same researcher children who are generally disliked, who are aggressive and disruptive, who are unable to sustain close relationships with other children, and who cannot establish a place for themselves in the peer culture, are seriously at risk. According to Ladd (1990) and friendships may buffer children and adolescents from the adverse effects of negative events, such as family conflict, terminal illness, parents' unemployment, and school failure. Emerging evidence strongly suggests that having friends, making friends, and keeping them forecasts good developmental outcomes. Close relationships may support good adjustment and its development, but, alternatively, well-adjusted children may simply be better at establishing friendships than poorly adjusted ones. Over all, studies show that friendships forecast good adjustment, and that making new friends changes children's resilience in positive directions during the school years (Oleke et. al., 2006; Ladd (1990). The social dynamics beyond family networks might act as buffers against childhood traumatic experiences. These kinds of supportive relationships can be found in schools both in side and out side classrooms, community neighbourhoods, and youth support groups and sport clubs and teams (Scudder et. al., 2008). Literature points out that children who are exposed to traumatic experiences show resilient behaviours when accompanied with positive and warm friendships and social networks (Scudder et. al., 2008; Crosnoe and Elder, 2004).

The ability to access social support is significant in predicting resilience. Emotionally supportive relationships with friends may promote resilience by serving as arenas of comfort (Milam et. al., 2004). Friendships become more prominent during adolescence. Because of this, support from friends may serve as buffer against the negative consequence of lack of parental support, especially in adolescence. Evidence suggests that friendships help young people cope with life stressors. HIV/AIDS affected children need a peer support structure to help them to cope with their emotional problems. Crosnoe and Elder (2004) reported that children expressed the importance of being with their peers in schools, and sports activities and

recreation opportunities in maintaining their happiness and well-being. On the other hand, support from friends did not moderate childhood resilience after parental loss.

1.6 Challenging the contemporary understanding of children orphaned by AIDS

There is a wide body of research findings connecting traumatic loss to a broad variety of emotional and social dysfunctions in childhood (Gedds, 2003; Brisch, 2002 and Prayor et. al, 2001). Many of the studies on the impact of HIV/ AIDS on children argue that orphaned children in general and children orphaned by AIDS in particular have a difficult time recovering from loss (Stein 2005; Garbus, 2003 and CAHB, 2001). According to Condly (2006), there is a widespread assumption and expectation that children suffer extremely from traumatic experiences. Consequently, there is a great deal of literature on childhood psychopathology in relation to trauma. It is often reported that orphaned children have trouble adapting to different stages of their lives because of their experience with traumatic breakdown of attachment bonds. Many researchers present that children orphaned due to AIDS suffer higher rates of depressed mood, phobias and school related problems. Common reactions of children to the death of a parent are depression, hopelessness, suicidal ideation, loneliness, anger, confusion, helplessness, anxiety and fear of being alone (Stein, 2005; Brisch, 2002; Prayor et. al, 2001; Prayor et. al, 2001; Dyregrov, 1991; Kilbride, 1985 and Bowlby, 1980).

A number of justifications are forwarded for such widespread outcomes. Firstly, according to Condly (2006) such outcomes result from an assumption that traumatic circumstances have most likely a devastating effect to the majority of children. It's assumed that children suffer to a great extent because they are dependent, and lack the cognitive, physical and financial capacities to care for themselves. The notion that children are dependent, inexperienced, and vulnerable and lack coping strategies has resulted in findings that present predominantly negative implications in the lives of children. The perception that childhood should be a safe-haven makes adults and, researchers as well, to overlook the struggle to cope among children and in turn affects them to be biased in their perception of them. As a result, many trauma researchers have been doubtful about individuals who do not show pathological reactions or who manifest resilience following parental loss, assuming that such individuals are rare and suffer from pathological or dysfunctional forms of grief (Bonanno, 2004; Bonanno et. al., 2002).

Secondly, such outcomes could result from directly applying western research on child maltreatment to a different part of the world without giving due attention to the socio cultural contextual factors. Applying western research on childhood trauma, psychopathology, and resilience to a totally different specific context of African and Ethiopian communities raises issues of cultural validity in research. While the typical western middleclass core family consisting of mother, father and one to three children have hopes for children to become independent , self assertive , strong and able to get good marks and to compete for a successful individual career (Rye, 2001), the ideas and aims for upbringing of children could be quite different in other parts of the world. The Ethiopian cultural orientation to upbringing emphasizes values like helpfulness, obedience, politeness and responsibility. The orientation in such communities is toward dependence and a close interpersonal relationship rather than independence and economic prosperity. While economic prosperity is essential, it is only one of the many factors contributing to children's socio emotional growth. Other factors such as the traditional culture of altruism, concern for, and commitment to others, a sense of solidarity among people, and the traditional child rearing practices should be considered in the investigation of resilience in an Ethiopian context.

As a consequence, relatively little is known about resilience in children exposed to traumatic parental loss. There are some researches especially traumas as war and deprivation (see Condlys, 2006). However, there is a very limited knowledge base about resilience among children orphaned by AIDS. There are examples of children who show resilient behaviour after severe and prolonged exposure to trauma (Bonanno, 2004). There is now, an increased interest in research that is targeting children who thrive in spite of vulnerabilities. Examining the factors that could contribute to resilience among children orphaned by AIDS is a complex challenge, requiring researchers to consider a wide range of personal, familial, social, and environmental factors. However, it is very indispensable.

1. 7 The Current study

While traumatic parental loss represents an undeniable risk factor for maladaptive outcomes, some groups of children appear to manifest successful adaptation and do not follow a negative developmental pathway. The central theme of this study is to test to what degree children orphaned by AIDS who demonstrate resilience. This study, therefore, aims at examining the dynamics of resilience among children orphaned by AIDS and its relationship with child related psychosocial variables. By studying those children who are resilient in spite of

traumatic experiences, specific family and community-based interventions for children in Ethiopian cultural context could be developed.

Research based understanding of resilience can allow practitioners to capitalize on opportunities for promoting positive adaptation to loss. There is a need for harnessing research findings on resilience in designing interventions for diverse at risk groups on resilience and intervention efforts to foster these. Understanding what helps children to function well in the context of high adversity helps to translate this knowledge into new practical strategies. In this context, this piece of study could be useful in providing an understanding of which factors increase the chances of traumatized children to become happy and well-adjusted individuals. In order to support specific child and family centered interventions, it is necessary to know the nature of children's resilience and how they are (or can be better) mobilized to meet the needs of these children.

Finally, based on literature review of factors that mediate children's capacity to thrive after traumatic loss, several statements of hypothesis can be made. The following lists of hypotheses are explored in the study.

1. AIDS orphaned children have the capacity to thrive out of their vulnerabilities to function well. Its expected that the majority of children exposed to traumatic parental loss would demonstrate resilience.

2. Girls are expected to manifest greater resilience as compared to boys.

3. The behavioral reaction of an orphaned child is expected to correlate with their age. Older children are expected to show higher resilience than younger children do.

4. The early-orphaned children are expected to show greater resilience than the recently orphaned children

5. The type of orphan hood is also one factor that mediates resilience. The presence of a surviving parent mediates the presence of resilience. It is expected that paternal and maternal orphans show more resilient tendencies than double orphans.

6. The quality of the relationship between the child and other children as well as between the child and the guardian is a crucial factor in becoming resilient. Strong family and friendship ties that accompany love, support, and care promote resilient tendencies for children than those who do not.

Based on the above hypotheses, the following research questions are formulated:

a. To what degree do children in Addis Ababa, Ethiopia, who are orphaned by AIDS display resilience?

b. Do age, gender, type of orphanhood, and the quality of social relationships influence resilience?

2. METHODS

2.1 Sampling

The participants in this study were 160 children whose age ranged from 11 to 16 who lost one or both of their parents due to AIDS. The participants were recruited from two elementary and junior high schools namely, Addis Hiwot (*New Life*) Community School and *Ketchenie* Junior High Schools (in cooperation with Emanuel Light and Life Center). The former's establishment has a vision to provide educational services for Orphans and Vulnerable Children by a local NGO called New Life Centre for Children Orphaned by AIDS. Consequently, the majority of children are AIDS orphans. The list of orphaned children was made available through the principal. 100 AIDS orphans were selected based on a systematic random sampling method by choosing the odd numbered entries on the list among the close to 200 children registered as AIDS orphans. For the later school, children were selected from the list of AIDS orphans from a local NGO called Emanuel Light and Life Center. From this school all 60 children were included in the study.

Among those recruited for the study, 148 had filled the questionnaire properly. 48, 6% of the children were double orphans, 36, 5% were paternal orphans and 14, 9% were maternal orphans. As can be seen in table 2.1, 40, 5% of the participants were boys, of whom the greater proportion constituted double orphans. There were 59, 5% girls in the study, of whom 46, 5 % were double orphans, followed by 38, 6% paternal and 14, 8 % maternal orphans. The mean age was 13. 4 with a standard deviation of 1. 5.

Table 2. 1 Distribution of children across gender and type of orphanhood

		Gender of respondents		**Total**
		Male N(%)	*Female N(%)*	
Type of Orphanhood	*Paternal Orphans*	20 (33.3)	34 (38.6)	54 (36.5)
	Maternal Orphans	9 (15.0)	13 (14.8)	22 (14.9)
	Double Orphans	31 (51.7)	41 (46.6)	72 (48.6)
Total		60 (40.5)	88 (59.5)	148(100.0)

2.2 Instruments

The instruments for data collection were the self-report version of the Strengths and Difficulties Questionnaire for children age ranging from 11-16 (SDQ S11-16) (Goodman, 1997) and a background inventory (Refer Appendix Two and Three). The background inventory was written in *Amharic* by the researcher of this study, who is an Ethiopian himself. The inventory aimed at capturing the child characteristics that are associated with resilience. 18 questions were constructed based on the available literature and the researcher's reflections. These include age, gender, type of orphanhood, the quality of relationship children had with other children and their guardians.

The Strengths and Difficulties Questionnaire (SDQ) is an internationally widely used brief screening instrument for mental health problems in children and youth. The SDQ probes behaviors and psychological attributes reflecting the child's difficulties as well as strengths, and targets emotional symptoms, conduct problems, hyperactivity/inattention, peer problems and prosocial behaviors(Goodman, 1997; 1999; and 2001).The SDQ has been translated to over 40 languages including Amharic which this study used directly without modifications. The *Amharic* version is translated by research associates of Goodman and Ethiopian researchers (Goodman, 1997). The SDQ contains 25 attributes, which concern both positive and negative behavioral traits. The 25 items are divided among 5 scales of 5 items. The scales generate scores for emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behavior, respectively. The items for each scale are listed below.

- **Emotional Symptoms Scale**: I get a lot of headaches, stomachaches or sickness; I worry a lot; I am often unhappy, downhearted or tearful; I am nervous in new situations. I easily lose confidence; and I have many fears. I am easily scared.

- **Conduct Problems Scale**: I get very angry and often lose my temper; *I usually do as I am told*; I fight a lot. I can make other people do what I want; I am often accused of lying or cheating; and I take things that are not mine from home, school or elsewhere.

- **Hyperactivity Scale**: I am restless, I cannot stay still for Long; am constantly fidgeting or squirming; am easily distracted; I find it decal to concentrate; *I think before I do things;* and *I finish the work I m doing, my attention is good.*

- **Peer Problems Scale**: I am usually on my own. I generally play alone or keep to myself; I *have one good friend or more; Other people my age generally like me*; Other children or young people pick on me or bully me; and I get on better with adults than with people my own age.

- **Prosocial Scale**: I try to be nice to other people. I care about their feelings; I usually share with others (food, games, pens, etc.); I am helpful if someone is hurt, upset or feeling ill; I am kind to younger children; and I often volunteer to help others (parents, teachers, and children).

Each item can be marked 'not true', 'somewhat true' or 'certainly true'. For all of the items except the five items printed above in italics, the item is scored 0 for 'not true', 1 for 'somewhat true' and 2 for 'certainly true'. On the other hand, for those items printed in italics 2 is scored for 'not true', 1 for 'somewhat true' and 0 for 'certainly true' For each of the five scales the score might range from 0 to 10 if all five items were completed. The scores for emotional symptoms, conduct problems, hyperactivity, and peer problems can be summed to generate a total difficulties score ranging from 0 to 40.

Higher scores on the prosocial behavior subscale reflect strengths, whereas higher scores on the other four subscales reflect difficulties. The scores are classified as 'normal symptoms' or low need for immediate intervention which in the present study is interpreted as presence of resilience, 'borderline symptoms' or some need for immediate intervention and 'abnormal symptoms' which implies high need for immediate intervention which indicates less resilience and higher vulnerability for a developmental risk (adopted from Goodman, 1997; and 1999). See table 2.2 for cut-off scores.

Table 2.2: Interpreting Scores and defining resilience from scores from Self-Report SDQ (Adopted from Goodman, 1997; 1999; 2000; and, Goodman et. al, 2000).

Behavioral categories	***Normal symptoms*** *(High rate of resilience)*	***Borderline Symptoms*** *(Some rate of resilience*	***Abnormal symptoms*** *(Low rate of resilience)*
Emotional symptoms	0-5	6	7-10
Conduct problems	0-3	4	5-10
Hyperactivity symptoms	0-5	6	7-10
Peer problems	0-3	4-5	6-10
Prosocial behaviors	6-10	5	0-4
Total difficulties	0-15	16-19	20-40

The SDQ has the following advantages. It is easy to use, administer, score, and interpret. It is free to use for non-commercial purposes. It is applicable to children and adolescents ranging from 4-16 years. It has been tested in a number of countries and has been found to be a valid and reliable measure of behavioral screening (Goodman, 1997; 1999; 2001; Goodman et. al., 2000; and Goodman and Mullik, 2001). Construct validity of SDQ scales has been evaluated by several studies by testing their agreement with other measures of similar constructs. Thus, correlations between the self rated SDQ subscales and Achenbach System of Empirically Based Assessment (ASEBA) scales and the Child Behaviour Checklist (CBCL) scales were found to range between 0.59 to 0 .84 (Achenbach, et. al, 2008; Goodman and Scout, 1999). The SDQ has been tested and found to have adequate discriminant and predictive cross-cultural validity in a number of studies in many countries including countries in Africa. Moreover, the SDQ discriminates well between children with and without psychopathological symptoms, and there is evidence to indicate that it can be employed as an effective screening instrument for childhood strengths and difficulties (Goodman et. al., 2000; Goodman and Mullik, 2000; Goodman, 2001; 1999; and 1997).

2.3 Procedure

After children were selected, the researcher acquainted the children, 10 at a time in one classroom, about the nature of the research, and instructed them in how to fill in the questionnaires. Thereafter, each child was provided with the self-report version of SDQ S11-16. This procedure was repeated sixteen times to generate 160 questionnaires. For Emanuel Light and life Study associated children, the questionnaires were filled at the center. Among the 160 children who filled in the background inventory and self-report version SDQ S11-16

(Goodman, 1997), 148 have filled it in properly, giving a response rate for the questionnaire of 93 %.

2.4 Analysis

The Statistical Package for Social Sciences (SPSS 16.0) was used for carrying out statistical analyses. Descriptive statistics, chi squares, two-way analysis of variance (ANOVA), and a multivariate regression analysis were used. Chi-square tests were used when testing independence between two categorical variables. ANOVA were used to test if there are significant differences in the mean scores on the dependent variable across the independent variables. The multiple regression analyses were used when the score variable was employed as the dependent variable and the relevant variables (predictors) are all entered simultaneously as independent variables. It was used to test whether or not the key independent variables influenced the dependent variables. The multiple linear regression analysis serves as a right statistical tool when the dependent variables (scores calculated from the self-report SDQ) are continuous measures (Pallant, 2007; Stock and Watson, 2007). The dependent variables that were statistically significant in the regression analysis were emotional and hyperactivity symptoms. The independent variables are listed below.

Independent variables for the regression:

Name of the independent Variables	Responses
Gender of the child	1= male; 2 = female
Age of the child	
Duration of parental death	1= less than one month; 2=1 –3 months ago, 3=4-6 months ago, 4=7 to 12 months ago, 5=Over 1 to 3 years ago; 6= 4 to 6 years ago; 7=More than 6 years ago.
Duration of maternal death	1= less than one month; 2=1 –3 months ago, 3=4-6 months ago, 4=7 to 12 months ago, 5=over 1 to 3 years ago; 6= 4 to 6 years ago; 7=More than 6 years ago.
Quality of relationship with other children	1= very good; 2 =well; 3=poor; 4= very poor
Quality of relationship with guardians,	1= very good; 2 =well; 3=poor; 4= very poor.
The Presence of one or more good friends	0= certainly true; 1=somewhat true; 2= not true
Being liked by peer group	0= certainly true; 1=somewhat true; 2= not true
Type of orphan hood	1=paternal orphan; 2 maternal orphan; 3= double Orphan
Number of friends	

Multiple regression analysis has a number of assumptions in the data before it is used as a proper statistical tool. Firstly, the sample size should be relatively large. According to Pallant (2007), a formula is used to determine if the sample size meets the requirements of the regression. The formula takes into account the number of independent variables used at a time. As indicted above the present study investigated 10 independent variables. The formula: N> 50+8m (where m= number of independent variables), suggests that the present data with 148 sample size (which is greater than 50+8(10) = 130) meets the sample size requirement for multiple regression analysis. Secondly, the inter correlation among independent variables has been checked and they are not significantly correlated to each other. In addition, data that were found to be outliers were removed from the 160 original participants (Pallant, 2007).

2.5 Ethical considerations

Prior to conducting the study, the research project was submitted and approved by the Regional Committee for Medical Research Ethics, Southern Norway and Norwegian Social Science Data Services (Refer Appendix Four). The proposal included a description of the purpose and nature of the study. A consent form was also submitted that included a description of ethical considerations throughout data collection, analysis and reporting stages. Ethical standards were met in terms of respecting the participants' welfare and dignity and their right to privacy and confidentiality (Gall et. al, 2003 and Homan, 2002).

Before the data collection process, a formal letter was provided from the Institute of Psychology, University of Oslo requesting relevant authorities to provide necessary support and permission for the research. The local authority, in this case the Sub City Education Bureau, showed interest in providing support and granted the researcher permission to work within the schools. All children and their immediate caregivers were told about the general nature of the study as well as about any potential harm or risk that the study might cause. They were assured of confidentiality, and they were also told that they were free to decline participation. In addition, they were offered the opportunity to receive a report about the results and conclusions of the research project (McNamee, 2002). The *Amharic* translation of the informed consent was read for each child and the interview was conducted only if the child and / or his or her guardian agreed to participate (Refer Appendix One).

3. RESULTS

3. 1 Children's scores on the SDQ scales

In the present study, the minimum score for the emotional symptoms score is 0 and the maximum is 10 (Mean= 5. 1, SD= 2. 29). The conduct problem scores range from 0 to 10 just like the emotional symptoms (Mean = 3. 8 and SD= 2. 23. The hyperactivity symptoms registered for this study was between 0 and 9 (Mean = 4, SD= 1. 8). The peer problem symptom scores ranged from 0 to 10 (mean= 4. 2, SD= 1. 95. The prosocial scores range from 0 to 10 (Mean= 6. 8, SD= 1. 6). The total difficulties scale had scores ranging from 5 to 30 (Mean = 17. 4, SD= 5. 5).

Table 3. 1 Distribution of children's scores on the SDQ scales

Behavioral Dispositions	**Normal Symptoms** (High Rate of resilience) N (%)	**Borderline Symptoms** (some rate of resilience) N (%)	**Abnormal Symptoms** (lower rate of resilience) N (%)	**Total** N (%)
Emotional symptoms	81 (54.3)	25(16.9)	42(28.4)	148(100)
Conduct problems	86 (58.1)	52(35.1)	10(6.8)	148(100)
Hyperactivity symptoms	110 (74.3)	20(13.5)	18(12.2)	148(100)
Peer problems	51 (34.5)	54(36.5)	43(29.1)	148(100)
Prosocial behavior	131 (88.5)	17(11.5)	-	148(100)
Total difficulties	51 (34.5)	45(39.4)	52(35.1)	148(100)

Table 3. 1 show that 54.7 % of the children's responses fell under the category normal symptoms, followed by 28. 4 % who fell under abnormal symptoms on emotional symptoms. The rest 16. 9 % were in borderline symptoms. 35. 1 % of the participants were categorized under borderline symptoms while the least proportion of children (6. 8 %) had scores that fall under abnormal symptom. 74. 3% of children had normal symptoms in their hyperactivity symptoms. The least fraction of them registered borderline and abnormal symptoms with 13.5 % and 12. 2 % respectively. Table 3. 1 also indicates that almost closely equal numbers of children were distributed between normal and borderline symptoms categories at 34. 5 % and 36.5% on their peer problems. The rest were labeled under abnormal symptoms category. All children were divided between normal symptoms (88. 5%), and borderline symptoms with 11. 5% on their hyperactivity symptoms. The above table also depicts that the scores were evenly distributed across normal, borderline, and abnormal symptoms in the total difficulties scale with 34.5%, 30.4%, and 35.1 % respectively.

Children were also asked to describe their emotional state at the time of and prior to the time of the study in the background inventory. Table 3. 3 demonstrates the children's responses.

Table 3. 2 Children's description of their emotional symptoms

Emotional State	**N (%)**
Sad	26(17.6)
Sorrowful	16(10.8)
worried	11(7.4)
Angry	6(4.1)
Scared	4(2.7)
Isolated, alone	20(13.5)
Feeling content	11(7.4)
Happy	27(18.2)
Very happy, joyful	26(17.6)
Total	**148 (100)**

Table 3.2 shows that the most prevalent response was happy (18, 2%). 41, 2 % of orphans reported some form of happiness or contentment at the time of the study, whilst the remaining 35, 8 % reported feeling some form of negative emotion (sadness, anger, and worry).

3.1.1 Factors associated with scores on emotional symptoms scale

The present study has investigated the relationship between the emotional symptoms and the independent variables gender, age, quality of relationship with other children and the quality of relationship with guardians using a chi square test of independence. The results are shown in table 3.3

Table 3.3 Chi square results for emotional symptoms

		Normal Symptoms N (%)	**Borderline symptoms N (%)**	**Abnormal Symptoms N (%)**	**Total**	**χ 2 value**	**Sig.**
Gender	M	37 (61.7)	13 (21.7)	10 (16.7)	60 (100)	7.127	P<.05
	F	44 (50)	12(13.6)	32(36.4)	88(100)		
	Total	81 (54.7)	25 (16.9)	42 (28.4)	148 (100)		
Age	11-13	52 (64.2)	14 (17.3)	15(18.5)	81 (100)	9.076	P<.05
	14-16	29 (43.3)	11 (16.4)	27 (40.3)	67 (100)		
	Total	81 (54.7)	25 (16.9)	42 (28.4)	148 (100)		
Quality of relationship with other children	Very good	54 (64.3)	20 (23.8)	10 (11.9)	84 (100)	30.111	P<.000
	Good	15 (45.5)	4 (12.1)	14 (42.4)	33 (100)		
	poor	3 (23.1)	1 (7.7)	9 (69.2)	13 (100)		
	Very poor	4 (44.4)	0 (0)	5 (55.6)	9 (100)		
	Total	76 (54.7)	25 (18)	38 (27.3)	139 (100)		
Quality of relationship with the guardian	Very good	58 (63.7)	20 (22)	13 (14.3)	91 (100)	31.130	P<.000
	Good	14 (45.2)	3 (9.7)	14 (45.2)	31 (100)		
	poor	3 (27.3)	1 (9.1)	7 (63.6)	11(100)		
	Very poor	0 (0)	0 (0)	4 (100)	4 (100)		
	Total	75 (54.7)	24 (17.5)	38 (27.7)	137 (100)		

The results indicate that there exists a relationship between ones gender and the emotional symptoms with a Pearson χ 2 value of 7.127 at P< 0. 05. More boys (61. 7%) scored in the normal range of emotional symptoms, while relatively more girl children (36. 4 %) scored in the range of abnormal symptoms

The relationship between the children's ages and the emotional symptom categories was statistically significant at a Pearson χ 2 value of 9.07 at P< 0. 05. Younger children (64. 2%) more often registered scores in the normal range compared to their older counterparts (40.3 %) who were found to record more symptoms that are abnormal.

Children were asked to what degree they get along with other children. There was a strong

relationship between the quality of relationship with other children and the scores on emotional symptoms at Pearson's $\chi 2$ value of 30.111 at P<0. 01. Among those who were having a very good relationship with other children, the majority (64. 3 %) reported normal symptoms. On the other hand, among those who had a very poor quality of relationship with others, the majority (55. 6) reported symptoms in the abnormal range.

Likewise, the relationship between the children and their guardians and the scores on emotional symptoms was investigated. There was a strong statistical significant relationship between the two variables at Pearson's $\chi 2$ values of 31.130 at P< 0. 01. The results in table 3.3 indicate that among those who were having a very good relationship with their guardians, the majority (63.7 %) had scored within the range of normal emotional symptoms while 14.3%displayed abnormal symptoms. On the other hand, all four (100%) children who reported having a very bad relationship with their guardians shown abnormal symptoms in their emotional symptoms. Similar results on gender and age effects have been generated from the ANOVA analysis s indicated on table 3. 4.

Table 3.4 ANOVA results for emotional symptoms

Source	Sum of Squares	Df.	Mean Square	F	Sig.
Corrected Model	69.022	3	23.007	4.704	P<.004
Intercept	3717.670	1	3717.670	760.135	P<.000
Age	33.437	1	33.437	6.837	P<.010
sex	18.448	1	18.448	3.772	P<.054
Age and sex	11.506	1	11.506	2.353	P<.127
Corrected Total	773.297	147			

Note: dependent variable: emotional symptoms

Table 3.4 shows similar ANOVA results for children's age categories. Younger and older children were significantly different in their emotional symptoms at F (6. 8), MS= 33. 4, P< 0.01. Boys and girls were also significantly different on their emotional symptoms, F (3. 77), MS= 18. 4, P< 0.1. Male children registered lower (normal) emotional symptoms than their female counterparts. Similar to the previous chi square finding younger children recorded normal emotional symptoms than their older counterparts.

In addition, a multiple linear regression analysis was used to further examine the relationship between the emotional symptoms and several other explanatory variables. The regression

analysis results using the emotional symptoms as a dependent variable is presented below in table 3. 5.

Table 3.5 Multiple linear regression results for emotional symptoms

	Standardized Coefficients		***t value***	***Sig.***
	Beta	**Std. Error**		
Constant		2.747	-1.510	.136
Sex	.173	.533	1.584	.119
Age	.239	.152	2.234	.029**
Time of paternal death	.146	.137	1.158	.252
Time of maternal death	.061	.155	.472	.638
Quality of relationship with other children	.071	.273	.535	.595
Quality of relationship with guardians	.123	.244	.913	.365
Having one or more good friend	. 202	.303	1.890	.064 ***
Being liked by ones peer	.468	.334	4.578	.000*
Type of orphan	-. 004	.611	-. 035	.972
Number of children one lives with	.006	.095	.051	.960

Note: dependent variable: emotional symptoms

* Significant at P< 0. 01
** Significant at P< 0. 05
*** Significant at P< 0. 1

Children's age is statistically significant at P< 0. 05. Thus as children move from the 11-13 age group to the 14-16 age group, their emotional symptoms increases indicating an increment of emotional symptom scores . Like wise, the perception of being liked was also significantly related to the emotional symptoms at P<0. 01. Having one or more good friends was significantly related to lower emotional symptoms at P<0. 1.

The chi square and the multiple linear regression analysis investigated for conduct problems have not brought about any statistically significant relationships with the independent variables in this study and will thus not be reported on in the results, except as part of the total score.

3.1. 2 Factors associated with scores on hyperactivity symptoms scale

A multiple regression analysis was undertaken using the hyperactivity symptoms score as a continuous dependent variable. The results can be found in table 3.6.

Table 3. 6 Multiple linear regression results for hyperactivity symptoms

	Standardized Coefficients		t value	Sig.
	Beta	Std. Error		
Constant		2.353	.109	.004
Sex	-. 057	.456	-. 444	.658
Age	-. 033	.130	-. 262	.795
Time of paternal death	-. 109	.117	-. 739	.463
Time of maternal death	.252	.133	1.676	.099 ***
Quality of relationship with other children	-. 178	.234	-1.155	.253
Quality of relationship with guardians	.267	.209	1.693	.096 ***
Having one or more good friend	-. 116	.260	-. 924	.359
Being liked by ones peer	.302	.286	2.528	.014**
Type of orphan	.265	.524	2.005	.050**
Number of children one lives with	.176	.082	1.349	.182

Note: Dependent variable: hyperactivity symptoms
** Significant at P< 0. 05
*** Significant at P< 0.1

A feeling of being liked tends to influence hyperactivity symptoms positively at P< 0. 05. As one progresses in one score of the item, there is a movement towards borderline and abnormal symptoms. Likewise, the type of orphanhood is statistically significant at P< 0.05 and its positive implying paternal orphans are more resilient than double orphans who carried a higher score of 3.

The quality of the relationship with the guardian where lower values stand for very good quality of relationship and higher values stand for very bad quality of relationship is statistically significant at P<0.1 and is positive. The implication is that as the scores of the item progress from lower to higher values, the symptoms of hyperactivity move in the same direction. The time of maternal death is also statistically significant at P< 0. 1 and it is positive. Here the interpretation is children who are recently orphaned children had normal scores on their level of hyperactivity symptoms than their early orphaned counterparts.

3. 1. 3 Factors associated with resilience on peer problems scale

The quality of the relationship children had with other children was associated with the scores on the peer problems sub-scale at a Pearson's $\chi 2$ value of 13.339 at P< 0. 05. Among those who reported to have a very good quality of relationship with other children, (40.5%) had lower scores on peer problems while among those who reported a very bad quality of relationship, the majority (55.6%) registered higher scores of peer problems (abnormal symptoms) in this particular scale.

Table 3.7 Chi square results for peer problems

		Normal symptoms N (%)	**Borderline symptoms N (%)**	**Abnormal Symptoms N (%)**	**Total**	**χ 2 value**	**Sig.**
Quality of relationship with other children	Very good	34 (40.5)	34 (40.5)	16 (19)	84 (100)	13.339	P<.05
	Good	9 (27.3)	11 (33.3)	13 (39.4)	33 (100)		
	Poor	3 (23.1)	3 (23.1)	7 (53.8)	13 (100)		
	Very poor	1 (11.1)	3 (33.3)	5 (55.6)	9 (100)		
	Total	47 (33.8)	51 (36.7)	41 (29.5)	139 (10)		
Quality of relationship with the guardian	Very good	37 (40.7)	36 (39.6)	18 (19.8)	91 (100)	10.414	P<0.1
	Good	7 (22.6)	10 (32.3)	14 (45.2)	31 (100)		
	Poor	4 (36.4)	4 (36.4)	3 (27.3)	11 (100)		
	Very poor	0 (0)	2 (50)	2 (50)	4 (100)		
	Total	48 (35)	52 (38)	37 (27)	137 (100)		
Presence of one or more good friends	Certainly true	38 (41.3)	37 (40.2)	17 (18.5)	92 (100)	18.095	P<.01
	Some what true	8 (36.4)	7 (31.8)	7 (31.8)	22 (100)		
	Not true	5 (14.7)	10 (29.4)	19 (55.9)	34 (100)		
	Total	51 (34.5)	54 (36.5)	43 (29.1)	148 (100)		

Likewise, the quality of relationship the children had with their guardians was also associated with their peer problem symptoms with a Pearson χ 2 value of 10.414 (p< 0. 1.) Those who reported having a very good quality of relationship with guardians, (40 %) had normal peer problems scores. On the other hand, those four children who reported having a very poor quality of relationship, displayed abnormal or borderline symptoms. Table 3, 7 also illustrates that having a good friend was associated with children's peer problems at a Pearson's χ 2 value of 18.095 at P < 0. 01. Those having one or more friends (41.3%) registered normal symptoms on the peer problems, while those children who do not have good friends (55.9%) registered abnormal symptoms.

3. 1. 4 Factors associated with scores on prosocial behavior scale

The relation between the quality of the relationship children had with their guardians and their scores on the prosocial behavior scale was significant ($\chi 2 = 8.976$, P<0. 05)

Table 3.8 Chi-square results for prosocial behaviour symptoms

Prosocial Behavior Scale	**The quality of relationship with the guardians**				**Total** N (%)
	Very Good n (%)	Good n (%)	Poor n (%)	Very Poor n (%)	
Normal symptoms	86 (94.5)	25 (80.6)	8 (72.7)	4 (100)	123 (89.8)
Borderline symptoms	5 (5.5)	6 (19.4)	3 (27.3)	0 (0)	14 (10.2)
Total	91 (100)	31 (100)	11 (100)	4 (100)	137 (100)
Test of significance	Pearson $\chi 2$				
	Value		Level of significance		
	8.976		P<.05		

As presented on table 3. 8, among those who reported having a very good quality of relationship with their guardians, 94. 5 % registered normal symptoms, while among those who reported having poor quality of relationships with their guardians, a relatively higher proportion of them (27. 3%) reported borderline symptoms. Most importantly, close to 90 % of the children reported symptoms that indicated normal functioning, irrespective of the quality of the relationship to the guardian.

3. 1. 5 Factors associated with scores on total difficulties scale

The age of children was associated with the scores on the total difficulties scale at a Pearson's $\chi 2$ value of 8.307 at P< 0. 05. The following table 3.8 shows the chi square results for the total difficulties scale.

Table 3.9 Chi square results for total difficulties

		Normal Symptoms N (%)	**Borderline symptoms N (%)**	**Abnormal symptoms N (%)**	**Total N (%)**	**Pearson χ 2 value**	**Sig.**
Age	11-13	35 (43.2)	25 (30.9)	21 (25.9)	81 (100)		
	14-16	16 (23.9)	20 (29.9)	31 (46.3)	67 (100)	8.307	P<.05
	Total	51 (34.5)	45 (30.4)	52 (35.1)	148 (100)		
Quality of relationship with other children	Very good	34 (40.5)	30 (35.7)	20 (23.8)	84 (100)		
	Good	7 (21.2)	11 (33.3)	15 (45.5)	33 (100)		
	Poor	4 (30.8)	0 (0)	9 (69.2)	13 (100)	22.470	P<.001
	Very poor	1 (11.1)	1 (11.1)	7 (77.8)	9 (100)		
	Total	46 (33.1)	42 (30.2)	51 (36.7)	139 (100)		
Quality of relationship with the guardian	Very good	39 (42.9)	32 (35.2)	20 (22)	91 (100)		
	Good	5 (16.1)	10 (32.3)	16 (51.6)	31 (100)		
	poor	4 (36.4)	1 (9.1)	6 (54.5)	11 (100)		
	Very poor	0 (0)	1 (25)	3 (75)	4 (100)		
	Total	48 (35)	44 (32.1)	45 (32.8)	137 (100)	18.638	P<.005

Table 3. 9 shows that 43. 2% of younger children (reported normal symptoms of total difficulties while 46. 3% of their older counterparts reported abnormal scores on total difficulties. As shown in table, the quality of relationship children had with other children was also found to be associated with their total difficulties at a Pearson's χ 2 value of 22.470 at P<0.01. Among those who reported having a very good quality of relationship with other children, a great deal of them (40. 5%) showed normal symptoms on total difficulties. On the other hand, those children who reported having a very poor (77. 8%) and poor (69. 2%) quality of relationship with other children registered abnormal scores in their total difficulties.

Likewise, the quality of relationship with the guardians was found to be significantly related to the total difficulties at a Pearson's χ 2 value of 18.638 at P < 0. 01. The table demonstrates that the majority of children (42.9%) who registered normal symptoms, reported to have a very good quality of relationship with their guardians. Among those who had a very bad relationship with their guardians, 75% registered abnormal symptoms on this scale.

The two way analysis of variance (ANOVA) results (Table 3.10) also convey similar results of the impact of age on total difficulties. Accordingly, younger (age 11-13) and older (age 14-16) children were significantly different at F (8.115), MS=229, P<0. 01.

Table 3.10 ANOVA results for total difficulties

Source	Sum of Squares	Df.	Mean Square	F	Sig.
Corrected Model	301.115[a]	3	100.372	3.542	P<.016
Intercept	43014.895	1	43014.895	1518.057	P<.000
Age	229.947	1	229.947	8.115	P<.005
Sex	10.663	1	10.663	.376	P<.541
Age + sex	26.261	1	26.261	.927	P<.337
Corrected Total	4381.426	147			

Note: dependent variable: total difficulties

A multiple linear analysis for total difficulties symptoms was undertaken. The results have been presented below in Table 3.11.

Table 3.11 Multiple linear regression results for total difficulties scores.

	Standardized Coefficients		**t value**	**Sig.**
	Beta	**Std. Error**		
Constant		6.202	.861	.393
Sex	.129	1.203	1.240	.220
Age	.068	.343	.669	.506
Time of paternal death	.151	.309	1.259	.213
Time of maternal death	-.004	.350	-.037	.971
Quality of relationship with other children	.007	.617	.054	.957
Quality of relationship with guardians	.248	.552	1.928	.059***
Having one or more good friends	.176	.685	1.720	.091***
Being liked by ones peer	.535	.754	5.492	.000*
Type of orphan	.130	1.380	1.200	.235
Number of children one lives with	.153	.215	1.433	.157

Note: dependent variable: emotional symptoms

* Significant at P< 0. 01

*** Significant at P< 0. 1

The results indicate that the being liked by ones peer group was a significant predictor for lower scores in total difficulties at P< 0.01. The quality of relationship with guardians, similar to the chi square findings, was significantly related with total difficulties scores at P< 0. 1. The stronger and warmer relationship represented by lower values in the item, is associated with lower scores in the scale. In addition, having one or more good friends (lower values representing more friends for the item), has been found to a significant factor for lower total difficulties scores at P< 0. 1.

4. DISCUSSION

4. 1 Main Findings

The present study has brought into light that the majority of children exposed to traumatic experiences due to AIDS induced parental loss show resilience as evidenced by the normal range scores on SDQ, respectively on emotional symptoms (54. 7%), conduct problems (58. 1%), hyperactivity symptoms (74. %), and prosocial behaviors (88. 5%). On peer problems score, the majority were borderline (36. 5%) while 34. 5 % were resilient. Children's scores on the total difficulties scale were evenly distributed across the three resilience categories

This finding is inconsistent with the widespread understanding of orphaned children in general and of those children orphaned by AIDS in particular. A review of literature on childhood parental loss indicates to a significant extent that children exposed to such childhood parental loss are vulnerable for post traumatic stress and other forms of psychopathology such as depression, anxiety and anti social behaviour. Researches on these groups of children portray that few bounce back to normal behavioral dispositions (Stein, 2005; Brisch, 2002; McGloin and Widom, 2001; Prayor et. al, 2001; Prayor et. al, 2001; Dyregrov, 1991 and Kilbride, 1985). This research, however, has demonstrated that traumatized children could be resilient. Bonanno (2004), in accordance with the result of the present study, presents that there are groups of children who not only survive severe and prolonged exposure to trauma but also manage to show normal behavioural tendencies.

There was a mixed finding on the emotion state of children during the time of study. 18. 2% and 17. 6 % of children were happy and very happy during the time of study respectively. On the other hand, 17. 6 % of children felt sad. The former finding is inconsistent with the literature on AIDS orphans that presents them as pathological, maladjusted and antisocial (Prayor et. al, 2001; Kilbride, 1985; Brisch, 2002; Prayor et. al, 2001; Dyregrov, 1991 and Stein, 2005). It is also evident that a significant number of children felt some sort of negative emotions indicating that all is not well with children passing through traumatic experiences. There is ample evidence that presents the emotional dysfunctions of orphan children in the literature. The literature present that children who have lost a parent were found to have higher rates of mood disorders, phobias (Prayor et. al, 2001; Kilbride, 1985). According to Dyregrov (1991), reactions to parental loss among children involve shock and disbelief, dismay and protest, apathy and being stunned, sadness and longing, anger and acting out behavior, guilt, self-reproach and shame. The death of a parent has been found to be a risk factor strongly

contributing to depression among adolescents and children and is considered a serious event, which, if not addressed, will lead to emotional and social disturbance in adulthood (Gedds, 2002).

4.2 Factors associated with resilience

4. 2. 1 Gender

Boys had significantly higher rates of resilience measured by normal SDQ scores than girls on emotional symptoms at χ 2=7. 12, P <0. 05. Similar results were also registered from the ANOVA result, F=3. 77, P < 0.1. The rationale might probably be that boys are more likely to be assisted by the family to ensure they succeed in life. Moreover, high rates of gender based discrimination place girls at particular psychosocial risk. Girls are more likely to have to sacrifice their education, take on household responsibilities and chores and be accorded lower status than boys. All of which seem to make them less resilient than their male counterparts. Similar outcomes were reported by Koskelainen et. al. (2001). In their study on self reported strengths and difficulties, girls had significantly higher scores than boys on the total difficulties score, the prosocial behaviour, hyperactivity symptoms and emotional symptoms.

In other studies, unlike the findings of this study, boys were reported to show high rates of overall psychological difficulties, with more aggressive and acting out behavior than bereaved girls. Studying resilience in high-risk adolescents, Losel and Bliesener (1994) found that boys were associated, more than girls, with frequent conduct problems and delinquent behavior. The literature portrays that boys appear more vulnerable than do girls (Dyregrov, 1991 and Downdey, 2000). Similarly, in their study of resilience among at risk children, McGloin and Widom (2001), found inconsistent result with the present study. Females were reported to show higher rates of resilience, individual functioning, and success compared to at risk male children. They argued that girls, more likely than boys, draw support from other sources for their emotional well being and development. Girls drew on trusting relationships and receiving help more than boys from their significant others. They tended, more than boys, to being lovable and in turn have the chance of getting care and support that they need.

4. 2. 2 Age

The present study indicated that there was a significant relationship between age and the emotional symptoms, $\chi 2 = 9.07$, $P < 0.05$. Similarly, the ANOVA results show that there was significant age difference on the emotional symptoms, $F = 6.83$, $P < 0.01$. Moreover the multi linear regression analysis presents similar results, $\beta = .239$, $P < 0.01$. Chi square and ANOVA results on the total difficulties present similar results $\chi 2 = 8.307$, $P < 0.01$ and 8.115, $P < 0.01$. All of which indicate that younger children were found to be more resilient than their older counterparts. This may be because they adjust more easily to the care by non parents than do older children. It might also be because of these children could have their second parent surviving by virtue of their age.

Similar to the results of the present study, other findings indicate that older orphans were less resilient than their younger counter parts (Dowdney, 2000; and Dyregrov, 1991). Other researchers, however, have found a result opposite to this. Other researchers have indicated that there is no statistically significant relationship between the age of the child and responses to parental loss (Payne et. al, 1999).

Because the age range was very limited in the present study, further life span methodologies are required to explore the age effects on resilience among children. Longitudinal studies permit examination of changes in health-related behaviors and processes over time. Longitudinal investigations of resilience among children orphaned by AIDS may be particularly informative when change is examined during critical periods of developmental stages (Holmbeck, et. al., 2006).

4. 2. 3 Type of orphanhood

The multiple linear analysis indicates that type of orphan hood had a significant influence on the hyperactivity symptoms, $\beta = .302$, $P < 0.05$. Being a paternal orphan with surviving mothers was found to be a significant factor for being resilient on the hyperactivity symptoms than maternal and double orphans. The ANOVA result also supports this finding indicating that there was a significant difference between paternal, maternal and double orphans on their hyperactivity symptoms, $F = 3.18$, $P < 0.05$. This is an expected finding, reflecting the possibility that that a surviving mother is there to provide care and support for the child. The situation of maternal orphans could be explained in such a way that surviving fathers might not be as good as mothers for orphans since they may not have the necessary time and patience.

Oleke et. al., (2006), similar to this study, have found out maternal and double orphans to be vulnerable and most likely to be abused by their guardians. In connection with this, Meintjes and Giese (2006) contended that paternal orphans most likely live with their surviving mothers providing them the opportunity to experience maternal care and support. The theory of attachment is evidence that children who have secure attachment to a parental figure are more likely to develop resilient tendencies (Bowlby, 1969).

4. 2. 4 Familial networks and dynamics

The linkage between having a very good support from surviving parents, grand parents, immediate caregivers and relatives is observed to be significantly related to resilience on emotional symptoms (χ 2=31.13, P<0.01), peer problems (χ 2=10.41, P<0.1), prosocial behavior (χ 2=8.97, P< 0.05) and total difficulties (χ 2=18.64, P<0.01). The multiple linear regression analysis supports that finding in that the degree of getting along with ones guardians influences children's hyperactivity symptoms (β =. 267, P< 0.1) and total difficulties (β =. 248, P< 0.1). The finding was expected because of the longstanding tradition in the study area where grand parents and guardians actively involve in the care and support of children orphaned by AIDS (Tefera, 2001; Melese, 2001).

Warm and supportive relationships have been found to promote normal developmental growth for children exposed to trauma. Oleke et. al. (2006) and Klein (2001) have noted that the quality of family relationship is strongly associated with the nature of the child's psychological development. On the contrary, more distant and poor relationships are found to disrupt children's resilience and risk emergence and sustenance of deviant behaviour (Crosnoe and Elder, 2004). A World Bank study on orphan children in East Africa indicated that children who grow up without the love and care of adults devoted to their wellbeing are at higher risk of developing psychological problems, lack of empathy with others and antisocial behaviors (Subbarao and Coury, 2004). According to Condly (2006) external familial support for the child is indispensable for the development of childhood resilience. A further consequence of having a sense of belonging is that the network of people from whom social support can be sought is significantly broadened. According to Condly (2006), children manage high level of social competence if they have a warm relationship with their mothers. A sense of belonging to a family and being able to trust their primary caregivers provides children with the security that enables them to venture out, explore, and engage with the world. Bronfenbrenner (1979) supports this view but also highlights the importance of cultural connections and a sense of

history. When children feel that they belong within their family, home, school, and community, they are more likely to show resilience. The importance of social interaction, care and support for children vulnerable to adversities was demonstrated through the classical studies of Bowlby (1969). To this regard, the theory of attachment highlights the importance of a secure attachment for children's development and social functioning.

4. 2. 4 Peer networks and dynamics

The present study has pointed out that friendships are central to personal growth and development for children exposed to trauma. Being liked by friends or ones peer group was a significant factor for emotional stability, β =. 468, P< 0.01 and lower scores for the hyperactivity symptoms, β=.302, P<0.05 and lower total difficulties scores, β =. 535, P< 0.01 Having a very good relationship with other children was significantly related to high rates of resilience on emotional symptoms (χ 2=30. 1, P<001), peer problems (χ 2=13. 3, P<0. 05) and total difficulties (χ 2=22. 47, P< 0. 01). Having one or more good friend was found to be significantly related to resilience in peer problems at χ 2=18.09, P < 0.01. It was also a significant factor for both emotional symptoms (β=. 176, P< 0.1) and total difficulties scores (β=. 202 , P< 0.1). All these findings boil down to the fact that success in having a very good friend, or securing a very good relationship with ones peer group could act as a buffer against parental loss. As emotional resources, friendships furnish children with the security to strike out into new territory, meet new people, and tackle new problems. Friends set the emotional stage for exploring one's surroundings, not unlike the manner in which caretakers serve as secure bases for the young child. This directly promotes their resilience out of adversity.

Literature supports that friendships help young children to thrive out of vulnerabilities. In this context, sibling relationships are also vital for promoting resilience (Crosnoe and Elder, 2004). This is because children and adolescents develop within a system of social ties. A positive presence of close peer relationships create a secure, interconnected base of support by so doing promotes children's adaptive behaviours in multiple ways to face their life threatening experiences. Studies suggest that friendships ease the stress associated with parental loss due to AIDS. Therefore, children with friends are better off than children without friends (Oleke et. al., 2006; Ladd, 1990).

4. 3 Limitations

Several limitations of the present investigation should be given due attention. Firstly, the concept of resilience presupposes exposure to risk. The present study lacks objective risk measurement owing to the sensitive nature of the study and the ethical restrictions thereof. Thus, the risk, AIDS induced parental loss, was not statistically measured to determine individual differences of risk vulnerability. The issue is whether all children who are orphaned by AIDS have actually experienced traumatic experiences though all meet the criteria of being exposed to traumatic experiences. This is because risk exposure and vulnerability depends to a greater extent by the degree and severity of parental loss, the child's cognitive appraisal, self efficacy, and the micro system of social interactions surrounding the child (McGloin and Widom, 2001). In other words, those who showed high rates of resilience might have had decreased exposure to risk.

Secondly, the study used only the self report versions of SDQ. The researcher believes that a more comprehensive outcome could have been generated had the parent and teacher report versions also been used. The most important strength of such rating is that immediate caregivers may spend more time in a day with the child than the teacher does, and has the advantage of having seen the child over a number of years in a very large number of situations. Immediate caregivers and teachers are expected to have extensive knowledge of the situational context of vulnerabilities to risk and children's resilient behaviors.

Thirdly, even though this study has sparked a light on such a complex subject as resilience among children exposed to traumatic experiences, the cross-sectional nature of the study makes it difficult to make strong assertions about the causal direction of variables predictive of resilience. Resilience as measured by emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour deserve to be investigated over an extensive period of children's life, for example, through a prospective, longitudinal study. Due to the complex nature of childhood post traumatic resilience, the writer acknowledges that these variables represent a simplified version of a more complex reality, but are presented as such for the sake of highlighting the main factors contributing to resilience. Even though, there is increasing evidence (Bonanno, 2004) that, overall, at risk children who manifest resilience in critical domains continue to reflect generally positive profiles over time, longitudinal research is needed to show if these resilient children would maintain high functioning.

4.4 Concluding remarks and implications for practice

Despite the aforementioned limitations, this study has brought to light that Ethiopian children orphaned by AIDS in this study demonstrated resilience if they were part of the right peer and familial social networks and dynamics. The support and care of extended families which is prevalent in the study area most likely acts as buffer against AIDS induced parental loss. In line with traditional practices, the integration of orphans within their close relatives should be given priority. By staying with known relatives and other children, orphans may grow up in a more stable and secure environment favoring their psychological, intellectual, and social development.

This study suggests that warm relationships and experiences offer children exposed to traumatic experiences access to much needed resources to become resilient. The goals of most community development programmes should be consistent with this form of resilience building. Resilience building measures should include supportive, caring and focused interpersonal interactions. A positive emotional climate and the availability of supports and resources within the family can serve a protective function. A supportive environment develops children's resilience with adversity. Such supports make children feel important and give them a sense that others are concerned about them. Feeling secure, loved and accepted is an important resilience promoting factor.

Guardians or immediate caregivers need to develop close ties with children exposed to trauma. They need to have a warm, supportive care and support for these children. Spending extra time and giving intimate love can be reassuring and helpful to children. Immediate caregivers should help children form good friendships with their peers such as through inviting a peer to the child's home.

Developing the appropriate mechanisms to ensure that children are well treated in a long term basis is important. Although grandparents may provide a secure and loving environment that helps children to develop effective resilient behaviors, they may find it difficult to respond to children's emotional, social, economic, and basic needs. Grandparents may be old, and they may be themselves sick and tired. They usually face strong material constraints and receive little external support. External support may help, but this type of care can be difficult to sustain over the long run because the current generation of grandparents will die. It is,

therefore, important in these situations that some kind of alternative support be arranged before the grandparents' death so that the orphans do not have to be sent from one home to another.

Alternative types of care are needed for children who are lacking support and care. Options such as foster care and adoption should be considered as forms of care that provide a family like setting for orphans who do not have any relatives to foster them

Children spend a great deal of time in school. It follows, therefore, that schools are good places to design and implement child centered resilience strategies. Therefore, teachers need to assess and identify circumstances of children in their classes. Teachers can assist children in developing appropriate resilience strategies. Teachers could show the child how to adapt to ongoing activities, or help the child develop interactions with other children in the classroom and beyond. Children who are supported, nurtured, and cherished are more likely to become resilient.

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Appendix One: Informed Consent

REQUEST FOR PARTICIPATION IN THE RESEARCH PROJECT ON RESILIENCE AMONG CHILDREN EXPOSED TO TRAUMATIC LOSS .

Solomon Worku, Graduate student

The Institute of psychology, University of Oslo

BACKGROUND

The purpose of the present study was to test to what degree children orphaned by AIDS demonstrate resilience. The target population in this study is children in the first cycle of primary school level (from Grade 1 to 8), whose age range from11 to 16 who lost one or both of their parents due to AIDS. The self-report version of the strengths and difficulties questionnaire for children age ranging from 11-16 (SDQ S11-16), and a background information inventory will be filled in by 160 children orphaned by AIDS. The strengths and difficulties questionnaire (SDQ) is a behavioral assessment questionnaire for the common forms of child and adolescent socio emotional difficulties. Once data is collected, data tabulation using the SPSS 16.0 software program for data entry and analysis will be made. Analysis of data will be undertaken to show important relationships of variables in the study. To this end, a mix of descriptive statistics, ANOVA, chi-square and regression analysis will be used.

This is a request for you to take part in this research project. The study is done in a partial fulfilment of Master of Philosophy degree in Psychology and the project is self-financing by the student and does not entail any conflict of interests. You will be asked to complete the questionnaire. You only answer the questions if you are willing to do so. You have the right to withdraw from the research any time you want to.

Possible advantages and disadvantages

It is necessary to know the nature of childhood resilience and how it is mediated to meet the needs of children orphaned by AIDS. In so doing, it will shine light for a new perspective for child and family centred interventions for these children. Some of the questions might appear uncomfortable; your response plays a role to the success of the project.

What will happen to the information you give in this study?

The information given by you will be registered and used only in accordance with the purpose of this study. All data will be processed without the use of names, ID codes, birth/personal numbers or any other forms of direct identifiable information. A code, connected to a list of names, will be used to identify the information you give. Only authorized personnel that are part of this study will have access to the list of names that could be traced back to you. It will not be possible to identify you through the results of the study when these are published.

Voluntary participation

Participation in this study is voluntarily**.** You may at any time and without stating a reason withdraw from the study. If you wish to participate in the study, please sign the informed consent on the last page of this document. If you at this stage agree to participate, you may still withdraw your consent at any point of the study. If you at a later stage wish to withdraw, or have any questions regarding the study, please contact Solomon Worku Agaje, Tel +251911895429 or P. O. Box 10207, or Addis Ababa or email soloma@student.uio.no

Protection of personal data

The information that will be registered about you is kept anonymous and kept confidential. The researcher and the research supervisor will maintain a moral responsibility of keeping autonomy of the informant and of the confidentiality of the information at the stage of data collection and during report writing. The researcher will make sure that children, their immediate caregivers and teachers are informed of the nature and purpose of the research and have autonomy to choose whether to participate in it.

The researcher who is a master's student at the Institute of Psychology, at the University of Oslo and his supervisor who is a professor at the same institute are responsible for correct registering and processing of the data.

Giving out material and information to others

If you agree to participate in this study, you also agree that information and anonymous data could be given to the University of Oslo, institute of psychology.

The right to access personal information

If you agree to participate in this study, you have the right to access registered information about you. You also have the right to correct eventual mistakes in the information we have

registered about you. If you withdraw from the study, you can demand that all information about you should be maculated, unless the information has already been analysed or used in academic publications.

Information about the results of the study

Participants and the schools where the children are going have the right to demand and know the results of the study. Copies of the final thesis will be available for the schools and the respective education bureaus.

INFORMED CONSENT

Dear Participant,

This research deals with examining the resiliency to traumatic loss due to HIV/AIDS in Ethiopia to explore and recommend possibilities for family and community-based interventions for children in Ethiopian cultural context. The study is conducted as a partial fulfillment for the Master of Philosophy degree in Psychology at the University of Oslo.

This study has enormous advantages. It is necessary to know the nature of childhood resilience and how it is mediated to meet the needs of children orphaned by AIDS. In so doing, it will shine light for a new perspective for child and family centered interventions for these children. Even though some of the questions might appear uncomfortable, your plays a paramount role to the success of this important purpose.

The researcher will keep a moral responsibility to respect the privacy and autonomy of the informant and of the confidentiality of the information at the stage of data collection and during report writing.

You will be asked to complete the questionnaire. You only answer the questions if you are willing to do so. You have the right to withdraw from the research any time you want to.

Consent to participate in the study

I am willing to participate in the study

(Signed by participant, date)

Consent by guardian when necessary, either in addition to or in stead of the participant

---

(Signed by guardian, date)

I agree to keep the anonymity and confidentiality of the respondent

---

(Signed, role in the study e.g., interviewer date)

I confirm that I have conveyed information about the study

(Signed, role in the study, date)

Appendix Two: Background Inventory

No.	Questions And Filters	Coding Categories	
01	Sex of the respondent	MALE FEMALE	1 2
02	Age of the respondent		
03	Is your father alive?	Yes No DON'T KNOW NO RESPONSE	1 2 88 99
04	When did he die?	Less than one month 1 –3 months ago 4-6 months ago 7 to 12 months ago Over 1 to 3 years ago 4 to6 years ago More than 6 years ago DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 88 99
05	Is your Mother alive?	Yes No DON'T KNOW NO RESPONSE	1 2 88 99
06	When did she die?	Less than one month 1 –3 months ago 4-6 months ago 7 to 12 months ago over1 to 3 years ago 4 to 6 years ago More than 6 years ago DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 88 99
07	How many of children live with you now in the same household?	Boys_____(*indicate number)* Girls_____*(indicate number)*	
08	How do you get along with your brothers, Sisters and the other children you moved with into this household?	Very well well poorly Very poorly Not applicable (no other children) DON'T KNOW NO RESPONSE	1 2 3 4 5 88 99

09	Do you have a guardian taking care of you?	Yes No DON'T KNOW NO RESPONSE	1 2 88 99
10	Who is taking care of you after your parent(s) passed away? (ONLY ONE ANSWER)	Grand mother Grand father Mother Father Aunt Uncle Elder sister Elder brother A relative A friend of my parents Teacher A neighbor I do not have Other , Mention ---------- DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 8 9 10 11 12 13 88 99
11	How do you get along with your guardian?	Very well well poorly Very poorly DON'T KNOW NO RESPONSE	1 2 3 4 88 99
12	With whom do you spend most time? (ONLY ONE ANSWER)	Grand mother Grand father Mother Father Aunt Uncle Elder sister Elder brother A relative A friend of my parents Teacher A neighbor I do not have Other , Mention ---------- DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 8 9 10 11 12 13 88 99
13	Who is the first person you talk to when you have a problem or a worry? (ONLY ONE ANSWER)	Grand mother Grand father Mother Father Aunt Uncle Elder sister Elder brother A relative A friend of my parents Teacher A neighbor I do not have Other , Mention ----------	1 2 3 4 5 6 7 8 9 10 11 12 13

		DON'T KNOW NO RESPONSE	88 99
14	What is different about your life since you moved into this household/ since your parents passed away?	My school attendance has declined or stopped My grades have worsened I have to do more chores I have to take care of smaller children We have less food/ money as a family I have less food/ clothes as an individual Nothing Other _____ DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 88 99
15	How do you feel these days, for the last couple of weeks?	Sad, unhappy Sorrowful Worried Angry Scared Isolated, alone Resolute, determined Comforted, relieved Happy, contented Other---------- DON'T KNOW NO RESPONSE	1 2 3 4 5 6 7 8 9 88 99

Appendix Three: Strengths and Difficulties Questionnaire S [11-16]

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can. Please give your answers on the basis of how things have been for you over the last six months.

Code No…….

Gender……

	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings.	□	□	□
I am restless, I cannot stay still for long	□	□	□
I get a lot of headaches, stomach-aches or sickness	□	□	□
I usually share with others (food, games, pens etc.)	□	□	□
I get very angry and often lose my temper	□	□	□
I am usually on my own. I generally play alone or keep to myself	□	□	□
I usually do as I am told	□	□	□
I worry a lot	□	□	□
I am helpful if someone is hurt, upset or feeling ill	□	□	□
I am constantly fidgeting or squirming	□	□	□
I have one good friend or more	□	□	□
I fight a lot. I can make other people do what I want	□	□	□
I am often unhappy, down-hearted or tearful	□	□	□
Other people my age generally like me	□	□	□
I am easily distracted, I find it difficult to concentrate	□	□	□
I am nervous in new situations. I easily lose confidence	□	□	□
I am kind to younger children	□	□	□
I am often accused of lying or cheating	□	□	□
Other children or young people pick on me or bully me	□	□	□
I often volunteer to help others (parents, teachers, children)	□	□	□
I think before I do things	□	□	□
I take things that are not mine from home, school or elsewhere	□	□	□
I get on better with adults than with people my own age	□	□	□
I have many fears, I am easily scared	□	□	□
I finish the work I'm doing. My attention is good	□	□	□

Thank you very much for your help

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UNIVERSITETET I OSLO
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Date: 17. March 2008
Your ref.:
Our ref.: S-07466a

S-07466a RESILIENCE TO TRAUMATIC LOSS IN THE AIDS EPIDEMIC IN ETHIOPIA.
[1.2007.2892]
Project manager: PhD, Postdoctoral Research Fellow Wenche Dageid, Department of Psychology, University of Oslo
Master degree student Solomon Worku Aggie

We refer to your letter dated 23. January 2008 with the revised information letter and declaration of consent for guardians and a separate information letter and declaration of consent for children

The committee accepts the explanatory response.

Concerning the revised information letter appendix B: "The information that will be registered about you will be kept anonymous ..." The term "anonymous" in this context is not quite exact, because there will be a code and a possibility of identifying individuals. Instead the expression "de-identified" or the term "confidential" could be used.

Decision:
The committee gives its approval to the implementation of the project.

Best wishes for the project!

Yours sincerely

Kristian Hagestad
Chief County Medical Officer, Spec. of Public Health
Chairperson

Jørgen Harsheim
Secretary

Copy to: Mastergradsstudent Solomon Worku Aggie, e-post: [illegible]

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Vår dato: 08.10.2008	Vår ref: 17882 GRH/RH	Deres dato:	Deres ref:

GJENOPPTAGELSE AV SAKSBEHANDLING OG TILRÅDING AV BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding, mottatt 09. november 2007, av prosjektet

17882:	*Resilience of Traumatic Loss in the Aids Epidemic in Ethiopia*
Behandlingsansvarlig:	*Universitetet i Oslo, ved institusjonens øverste leder*
Daglig ansvarlig:	*Wenche Dageid*

Vi viser videre til brev fra personvernombudet om avslutning av saksbehandling, datert 06. mai 2008, samt brev til personvernombudet, mottatt 23. september 2008, om forespørsel om gjenopptagelse av sakebehandlingen.

Personvernombudet har på bakgrunn av ny dokumentasjon, vedlagt brev av 23. september 2008, vurdert prosjektet og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet samt personopplysningsloven med forskrifter. Det forutsettes at utvalget er informert om prosjektet i tråd med informasjonen i informasjonsskrivet, mottatt 23. september 2008, og har samtykket aktivt (skriftlig eller muntlig) til deltakelse. Ved prosjektslutt, 31. desember 2008, anonymiseres opplysningene, ved at alle opplysninger om navn på respondentene slettes/makuleres.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/forsk_stud/skjema.html.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://www.nsd.uib.no/personvern/prosjektoversikt.jsp.

Personvernombudet vil ved prosjektets avslutning, desember 2008, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Bjørn Henrichsen

Grethe Halvorsen

Kontaktperson: Grethe.Halvorsen@nsd.uib.no, tlf. 55 58 25 83/ 55 58 21 17

Kopi: Solomon Worku Agaje, Psyklogisk institutt, Universitetet i oslo