RESILIENCE STATUS, RISK AND PROTECTIVE FACTORS OF AIDS-ORPHAN ADOLESCENTS IN TWELVE KEBELES OF ADDIS ABABA

BY

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RESILIENCE STATUS, RISK AND PROTECTIVE FACTORS OF AIDS-ORPHAN ADOLESCENTS IN TWELVE KEBELES OF ADDIS ABABA

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RESILIENCE STATUS, RISK AND PROTECTIVE FACTORS OF AIDS-ORPHAN ADOLESCENTS IN TWELVE KEBELES OF ADDIS ABABA

BY
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Acronyms

AIDS- Acquired Immune Deficiency Syndrome
ANOVA-Analysis of Variance
CD-RISC- Connor-Davidson Resilience Scale
HIV- Human Immunodeficiency Virus
SIDA- Swedish International Development Agency
SPSS- Statistical Package for Social Sciences
UNAIDS- United Nations’ Agency for International Development Services
UNDP- United Nations’ Development Program
UNICEF-United Nations’ Children’s Fund
USAID- United States Agency for International Development
WHO- World Health Organization
Acknowledgement

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I dedicate this paper work entirely to my mother Elizabeth Wuhib who taught me from early years of my life, important social skills on how to be resilient in faces of adversities and who inspired me the most to design a study on such topic.
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Abstract

This study examined the resilience status, and the associated risk and protective factors of AIDS orphan adolescents living in selected twelve Kebeles of Addis Ababa. 300 respondents who had lost both of their parents to HIV/AIDS disease in the age range of 13-18 years were sampled from the Kebeles' lists for this study. Connor-Davidson Resilience Scale (CD-RISC) and questionnaire (which assessed individual, familial and social environment information) were administered to the respondents of which 266 valid and complete responses of AIDS orphan adolescents was taken for data analysis. Mean split method showed that 2/3 of the respondents had at least average resilience level scores in CD-RISC where as only 1/3 were found to have below average competence level. Using independent sample T-tests and ANOVA responses to the questionnaire were analyzed in relation to respondents' resilience scores. The finding showed that gender (females over males); education status; academic performances; living arrangements; access to basic needs; participating in community activities; access to attachment figures; and coping mechanisms (looking for advice and use of prayers over other coping mechanisms) were found directly related to AIDS orphan adolescents resiliency. On the other
hand, changing living area, crime and substance use prevalence in the area were found to be inversely related to AIDS orphan adolescents resiliency. However, age, proximity of years since death of parents, employment and emotional states of respondents were found to have insignificant effects on their resilience statuses. Based on this research’s findings most of the risk and protective factors indicated in resilience theory were found to be applicable to AIDS orphan adolescents of Addis Ababa, and recommendations on how to apply the theories approaches were indicated finally signifying required individual, familial, and social environment characteristics to concerned bodies dealing with positive development of AIDS orphan adolescents.
CHAPTER ONE

1. Introduction

1.1. Background

Hans Selye (1936), the author of the first published authority on stress stated that ‘it is not what happens to you that matters, but how you take it’. In the face of traumatic events, people cope and adapt in varied ways and show varying degrees of resilience. Investigation into the resilience status and associated factors that foster or demote resilience in contemporary AIDS-orphan adolescents of Addis Ababa form the basis of this study.

According to Healthlink Worldwide (1998), United Nations Children’s Fund [UNICEF] and United Nation’s Agency for International Development Services [UNAIDS] (1999), Association Francois-Xavier Bagnoud (2000), and UNAIDS (2000a) reports the HIV/AIDS disease has caused numerous health and economic problems in Ethiopia. However, the greater tragedy of the epidemic was the disintegration of the family unit and the emergence of a larger number of orphanhood. Tsegaye (2001) has reported that the number of AIDS-orphans in Ethiopia has reached the one million mark, and Mattanovich (2005) in her recent analysis of experts’
views indicated that HIV/AIDS would orphan a quarter of the children and youth population of the country by 2025.

According to Mulugeta & Rebecca (2000) report, 40% of Ethiopia’s AIDS-orphan generations were living in urban areas. Although a comprehensive data was not available, the majority of the country’s urban AIDS-orphan’s population were reported to live in under difficult circumstances in the capital city of Addis Ababa, (Tsegaye, 2001; Tedla & Meseret, 2002).

As reported by Tolfree (1995), World Bank (1997), Fox (2001), Foster and Jiwli (2001), International HIV/AIDS Alliance (2003), Lourens (2003), and Williamson (2004) although AIDS-orphans were faced with multiple stressful events that have endangered their psychosocial wellbeing, the researcher has observed some AIDS-orphan adolescents being competent and well adjusted to their changed family situations.

Seeing that no comprehensive research was done in Ethiopia’s AIDS orphan generation’s context, the researcher as a first step has presented this study by assessing the resilience status, risk and protective factors associated with AIDS-orphan adolescents living in twelve Kebeles of Addis Ababa.
1.2. Statement of the Problem

Ethiopia is one of the countries where large numbers of HIV/AIDS-orphans are living, (Tsegaye, 2001 & Mattanovich, 2005). As cited in Foster and Williamson (2000), and International HIV/AIDS Alliance (2003) AIDS orphans particularly in adolescence stage have faced multiple stressful situations in the social environment as a result of losing both of their parents to HIV/AIDS disease. These multiple stressful situations were reported to put AIDS-orphan adolescents at risk of developing psychological problems. In spite of such multiple stressful situations, the researcher observed some AIDS-orphan adolescents doing better in the changed family situations. Since no such study was conducted, as a first step the researcher assessed the resilience status and evaluated major factors associated with AIDS-orphan adolescents of Addis Ababa.

1.3. Objectives

1.3.1. General Objective

The study is conducted to assess the resilience status of AIDS-orphan adolescents residing in the Addis Ababa city, and to evaluate major risk and protective factors associated with their resiliency.
1.3.2. Specific Objective

1.3.2.1. Measure the resilience status of AIDS-orphan adolescents of Addis Ababa

1.3.2.2. Assess the effect of gender on respondents’ resilience status

1.3.2.3. Assess the effect of age on respondents’ resilience status

1.3.2.4. Assess the effect of current education status on respondents’ resilience status

1.3.2.5. Assess the effect of current academic performances on respondents’ resilience status

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1.3.2.11. Assess the effect of participation in school and/or community activities on respondents’ resilience status
1.3.2.12. Assess the effect of availability of attachment figures on respondents’ resilience status
1.3.2.13. Assess the effect of current psychosocial state on respondents’ resilience status
1.3.2.14. Assess the effect of coping mechanisms on respondents’ resilience status
1.3.2.15. Assess the effect of engagement in gainful job activities on respondents’ resilience status
1.3.2.16. Indicate further areas of research on AIDS-orphans resiliency and recommend to concerned bodies some major factors that contribute to AIDS-orphans’ resiliency in urban areas of Ethiopia.

1.4. Significance of the Study

In the researcher’s opinion this study is first of its kind in Ethiopia to assess the resilience status, risk and protective factors associated with AIDS-orphan adolescents. The study has major contributions for concerned bodies in the country such as families, communities, schools, welfare organizations, and government bodies, who are dealing directly or indirectly in the care and support of AIDS-orphan adolescents. These social agents would be able to understand the existence of variation in degree of resilience among AIDS-orphan
adolescents despite multiple stressful situations in their lives. The study further would benefit such concerned bodies to note major risk and protective factors involved in AIDS-orphan adolescents’ familial and social environments that would demote or foster resilient personality. Thus concerted bodies can evaluate and restructure their policies and approaches regarding AIDS-orphan adolescents. Further this study’s findings and suggestions on the importance of promoting resilience would call for other researches in the area extending resilience-based studies in AIDS-orphans of Ethiopia found at different developmental stages and living situations. Finally this study would have a contribution to the ongoing resilience researches conducted in other parts of the world.

1.5. Delimitation

The study was limited to a sample of 266 orphan adolescents of both sexes in the range of 13-18 years of age, who lost both of their parents due to the HIV/AIDS disease, residing and registered as AIDS-orphans in the selected 12 Kebeles of four Sub-Cities of Addis Ababa, namely Kolfe-Keranio, Kirkos, Lideta, and Gulele. Although no comprehensive data was found to know the exact figure of AIDS-orphan adolescents living in the 12 Kebeles of the four sub-cities, a total of 3648
AIDS-orphan adolescents were found from the Kebeles residents' lists, from which 300 (about ten percent) were selected for the study using lottery sampling method. However, 12 of the selected AIDS-orphan adolescents submitted incomplete responses on the questionnaire administered whereas 22 others did not submit their responses at all. These left the research analysis to be delimited to 266 valid respondents who submitted in time and had complete responses on the questionnaire. Moreover, those AIDS-orphan adolescents who were not registered in the selected 12 Kebeles and those who were residing in other Kebeles and sub-cities of Addis Ababa were not included in the analysis. In addition, the study did not include AIDS orphans who were below the age of 13 and AIDS orphans living on the streets where greater portion of the AIDS-orphan population were indicated to be found, (Mattanovich, 2005). Furthermore, the study was delimited to assess the resilience personality of AIDS-orphans found in the developmental stage of adolescence who were facing multiple stressful situations in their lives as a result of losing both of their parents to HIV/AIDS.
1.6. Operational Definitions

Adolescent: is an individual found in the range of 13 – 18 years of age.

Adversity: is a stressful situation that comes from an AIDS-orphan adolescent developmental conditions and/or catastrophes of external environments which appear as a result of losing both of her/his parents that can put the individual at risk of failing to become a meaningful member in the social environment.

AIDS-orphan adolescent: is an individual who is in the age range of 13-18 years who have lost both of her/his parents due to HIV/AIDS related diseases.

Attachment figure: is a person in the social environment who provides basic necessities, emotional support, guidance, and/or a model behavior to AIDS-orphan adolescents.

Basic needs: are vital developmental necessities of AIDS-orphan adolescents which must be available in their social environment as a form of material and institutional services which include food, clothing, shelter, school, recreational areas, and medical and counseling services.

Community: is a collection of individuals in the current living area of an adolescent demarked by area names of local government administration known as Kebele.
Early Adolescence: A sub-period of the developmental stage of adolescence which includes individuals in the age range of 13-14 years.

Extended family: includes all generations of relatives of an individual’s parents related by blood or marriage such as grandparents, uncles, aunts, cousins, etc.

HIV/AIDS: is an abbreviation for Human Immunodeficiency Virus and/or Acquired Immune Deficiency Syndrome which is a fatal disease with no chance of curability and transmittable to person to person through sexual intercourse and body fluids transfusion from already infected to non-infected.

Kebele: is the smallest government unit area which designates a certain community from the others.

Late Adolescence: A sub-period of the developmental stage of adolescence which includes individuals in the age range of 17-18 years.

Middle Adolescence: A sub-period of the developmental stage of adolescence which includes individuals in the age range of 15-16 years.

Negative coping Mechanism: is a mal-adaptive behavioral action that an AIDS-orphan adolescent employ to recover from stressful events in her/his life which does not however help her/him to be resilient.
Positive Coping Mechanism: is a behavioral action an AIDS-orphan adolescent employ to recover from stressful events in her/his life which helps her/him to be resilient.

Protective-Factors: are an individual's developmental condition and/or external social environment's situations that can help her/him to cope or "bounce back" from adverse life situations.

Resilience: is current competence level of adolescents who lost both of their parents due to the HIV/AIDS disease measured by the Connor-Davidson Resilience Scale (Connor & Davidson, 2003) where at least average score indicates a better coping and functioning status of the individual in the social environment.

Risk-Factors: are an individual's developmental condition and/or external social environment's situations that are expected to impede her/him to cope or "bounce back" from adverse life situations.

Social Environment: Includes members of families, peers, neighbors, community, religious associations, schools, welfare organizations, and local government bodies that live in the area of AIDS-orphan adolescents.

Stress: is the emotional state of an AIDS-orphan adolescent that puts her/him in disturbing situation due to adversities in her/his life.
Welfare Organization: is a governmental or non-governmental institution which provides basic materials and/or psychosocial support to AIDS-orphan adolescents who are under difficult circumstances to sustain and better their lives.
CHAPTER TWO

2. Review of Literature

Many literatures and researches in Africa have indicated that AIDS orphans and AIDS-orphan adolescents in particular were faced with multiple stressful events as a result of losing their parents to HIV/AIDS disease. According to Fox (2001), United States Agency for International Development [USAID] (2002), International HIV/AIDS Alliance (2003) and Williamson (2004), HIV/AIDS affected households have begun to suffer even before their parents die. Income of the family would drop as a result of the illness of main bread-winners of the family. According to Tolfree (1995), World Bank, (1997), Foster & Jiwli (2001) and Lourens (2003), older children mostly in the stage of adolescence would interrupt their schooling to care for the sick parents and younger siblings, or yet to earn income to help pay for increasing medical expenses. This would live older orphans in great psychological distresses consequently increasing the likelihood of their inadequacy in managing changes in their families’ situations, (World Health Organization [WHO] & UNICEF, 1994; Levine & Foster, 2000; Swedish International Development Cooperation Agency [SIDA], 2001). Below figure one has illustrated the
multidimensional problems of orphans and families affected by HIV/AIDS adapted from Foster and Williamson, (2000).

As figure one illustrated the situations of AIDS-orphans have worsened after their parents’ death. According Foster and Williamson (2000), Fox (2001), Lourens (2003), and Tolfree (2003) reports, many AIDS-orphans in Africa including Ethiopia, have dropped out of school, have limited access to health care and more likely become malnourished. Levine and Foster (2000) indicated that some adolescent orphans were forced to raise their younger siblings by dropping-out from school and by engaging in low paying and less skill requiring
jobs. Wingood and DiClemente (2000), UNAIDS (2001b), and USAID and Children on the Brink, (2002), reported that some female adolescent orphans who found themselves and their young siblings in hopeless situations have turned to prostitution and thus have increased their likelihood of HIV infection.

The compounded effect of orphanhood was exenterated seeing the mental and emotional health of this parentless generation. According to reports of UNDP (1994), UNAIDS (2000a/2001a), and UNICEF (2000/2002) almost without exception AIDS-orphans were marginalized, stigmatized, malnourished, uneducated, and physiologically damaged. Affected by actions over which they had no control and in which they had no parts, AIDS-orphans of different ages dealt with the most traumas, faced the most dangerous treats and had the least protection.

International HIV/AIDS Alliance (2003), after assessing more than forty countries in Africa including Ethiopia, outlined the stages of psychological damages caused by the compounded stressful factors AIDS-orphans faced as illustrated in Figure two. The finding indicated that post-traumatic stress disorders would emerged in AIDS-orphans, primarily from multiple
deaths in their family and secondarily from stressful factors associated with their living situation and social environment.

Figure 2: The Stages of Psychological Damage caused to Orphans affected by HIV/AIDS

The report further indicated that in the first two years of experiencing multiple deaths of parents orphans would be traumatized and emotionally stressed. Studies (Cook, 1998; UNICEF & UNAIDS, 1999; UNICEF 2000; UNAIDS 2000a/2001b; Foster and Jiwli, 2001; Lourens, 2003) in different Africa countries including Ethiopia noted that AIDS-orphans often have felt deep sadness for losing their parents and their love, care and protection. Lack of support during their grieving process and inadequate help to adjust in their changed living situations have led many AIDS-orphans to depression. Lourens (2000), and Grainger, Webb and Elliot (2001), reports indicated that this would result in long term mental health problems when compounded with secondary stressful factors such as loss of home, separation of family members, relocation, school dropping-out, discriminations and lack of access to basic needs.

Fox (2001) noted that most AIDS-orphans (the extent varying across age) worried about their future after their parents’ death. Furthermore, WHO (1997/1999), Save the Children UK (2002), and Dunn, Andrew, Jareg and Webb (2003) reports indicated that older orphans were frustrated about themselves and their younger siblings’ situations and their social status in the social environments.
WHO (1997), UNICEF (1997), Association Francois-Xavier Bgnoud (2000), Foster and Jiwli (2001), and UNAIDS (2000a) indicated that most cultures in Africa, including Ethiopia considered HIV/AIDS as punishment for wrong doing families and also associated it with promiscuity and witchcrafts. The reports have indicated that many communities have avoided associating themselves and their children with residing AIDS-orphans. Phiri, Foster and Nzima (2001) discussed that stigmatizations and discriminations had resulted for many AIDS-orphans in the deprivation of school, health care and recreational facilities. Many emotional problems were reported by orphans as a result of such forced disassociations.

According to International HIV/AIDS Alliance (2003), observations from different countries of Africa indicated that some AIDS-orphan children and adolescents often felt guilty and responsible for the death of their parents. Most orphans felt that their parents risked their lives to the extent of engaging in commercial sex work, in an attempt to provide them with their needs. On the other hand, some AIDS-orphans especially male adolescents have felt anger against their deceased parents for abandoning them and living them to suffer alone in caring of their younger siblings. WHO and
UNICEF (1994) joint report further has indicated that such anger would also be directed to other people, who have denied them privileges in the community and school.

Grainger et al. (2001) indicated that many orphan adolescents who often received little or no support from significant others in their living environment, tried to cope with their multiple stressful situations in ways that harmed themselves or others. Some were indicated to become delinquents. Foster and Williamson (2000) indicated that many orphans of urban areas of Africa, especially male adolescents living in disorganized communities where crime prevalence was high, often engaged in juvenile crimes due to lack of adult guidance in their social environment. In addition, many AIDS-orphan adolescents living in such communities have engaged in substance abuses such as taking alcohol and illicit drugs to cope with the multiple adversities of their lives. Loening-Voysey, Heidi and Wilson (2001) and Verhoef (2002) also pointed that many female AIDS-orphan adolescents often withdrew from others and activities as coping mechanisms. Researches in many African countries also indicated that female AIDS-orphan adolescents also have engaged in unsafe sexual activities in the process of looking for emotional support and have increased their chance of HIV/AIDS infection and parenthood.
in their earlier years of life, (Weiss, Whelan & Gupta, 1996; Wingood & DiClemente, 2000).

As indicated above by many studies AIDS-orphan adolescents before and after the death of their parents they were bombarded by compounded stressful factors and consequently most were reported to be at great risk of developing serious psychiatric problems. However, some theoretical studies (Maddi & Khoshaba, 1994; Cook, 1998; Tsuaung, 2000) indicated that such adverse life events would contribute to psychiatric disorders in only 1/3 of “at-risk” children and adolescents population. One such theoretical framework of studies is the resilience theory.

2.1. Theoretical Background

In the last twenty years some researches in the fields of developmental and clinical psychology had focused on studies to explain why some people responded better to stress and adversity than others. Researchers called these people resilient and had been working on to the development of a resilience theory. Many had proposed general definition of “resilience” and factors associated with it.

From clinical psychology perspective, the America Psychiatric Association (2000) defined resilience as “the maintenance of competent functioning despite an interfering emotionality”.
On the other hand, in 1985, Garmezy and Rutter, two developmental psychologists operationalized resilience in one of their earlier projects as, "manifestations of competence in children despite exposure to stressful events."

In 1985, Rutter defined resilience as facing "...stress at a time and in a way that allows self-confidence and social competence to increase through mastery and appropriate responsibility."

In 1996, Gordon defined resilience this way: "Resilience is the ability to thrive, mature, and increase competence in the face of adverse circumstances. These circumstances may include biological abnormalities or environmental obstacles. Further, the adverse circumstances may be chronic and consistent or severe and infrequent. To thrive, mature, and increase competence, a person must draw upon all of her or his resources: biological, psychological, and environmental".

In 2001, Masten defined resilience in this manner: "Resilience in an individual refers to successful adaptation despite risk and adversity." She went on to say, "resilience refers to a pattern over time, characterized by good eventual adaptation despite developmental risk, acute stressors, or chronic adversities."
After reviewing many theorists' definitions, Masten, Best, and Garmezy (1990) pointed out that resilience was conceptualized as either the process of, or capacity for, successful adaptation despite challenging or even extremely threatening circumstances. According to these researchers these two aspects of the definition have created some confusion about whether resilience is:

- an outcome for individuals who experience difficulties and still have a positive result;
- a skill or capacity to cope under conditions of enormous stress and change that may be assisted by the ability to access social support;
- a process of adaptive coping; or
- a set of individual and environment variables that may be specific to particular developmental stages and environmental or contextual circumstances.

Rolf, Masten, Cicchetti and Nuechterlein (1990), and Smith and Carlson (1997) further indicated that these four aspects of the definition also have raised questions of chronology, in terms of whether resilience processes:

- pre-exist adversity, so that individuals have certain characteristics before, during and after exposure to distressing
circumstances that enhance their ability to function optimally despite adversity;

- come into being at the time of adversity and, as such, can be considered coping strategies that emerge as a result of difficulty or

- begin to function once risk is established, when they serve to decrease the likelihood of developing problems.

Various conceptual models have been advocated as tools for better understanding of the concept of resilience. The first model conceived resilience as simply being the opposite of risk. The early resiliency studies assumed that risk and resilience represented opposite ends of a single spectrum. At times, these assumptions held true. For example, having a poor parent–child relationship is a risk factor, and having a good parent–child relationship contributes to resilience, (Beyth-Morom, Fischoff, Jacob, & Furby, 1989). There were, however, sufficient exceptions to this simple model, thus required further conceptual refinement.

To remedy the drawbacks of the first model the universal strengths model was developed during the work of the International Resilience Project. According to Grotberg (1995), this model maintained that resilience was a universal human capacity that enabled a person, group or community to
deal with adversity by preventing, facing, minimizing, overcoming and even being strengthened or transformed by adversity. The universal strength model indicated that human beings were naturally endowed (probably through evolution) with the ability to cope with adversity, but that this capacity needed nurturing and support within a facilitative environment to enable resilience to win over vulnerability and risk, (Benard & Marshal, 1997). This model had the clear advantage of shifting the focus away from individual deficits to individual strengths, competencies and capacities and, as such, was a critical step in understanding resilience within the context of the individual, family and larger social environments, (Masten & Coatsworth, 1998).

Previous resilience theory had focused on deficits and problems that required diagnoses and treatment. The paradigm shift to a strengths model focused on building individual, family and community strengths. Grotberg (1995) also challenged the notion that people could be “vulnerable but invincible”, arguing that people did not remain unscathed by adversity. She contended that resilient people were not protected against, but were better prepared for, difficulties and hardship. Resilient people would address adversity more successfully than non-resilient people.
The universal strengths model had made important contributions towards the development of resilience theory. According to the third resilience model it did not, however, always hold up in practice, (McCubbin, Thompson, Pirner, & McCubbin, 1988; Masten, 2000; Garbarino & Granzel, 2000). Resilience researches found that only 50% to 66% of people had the capacity to bounce back despite adversity, (Masten, 2000). Moreover, there were also individual variations in the degree of resilience exhibited by different individuals, at different points in time, and in different contexts, (Crikszentmihalyi & Scheider, 2000).

The third model of resilience stated that certain children, families and communities had protective capacities or processes that enable them to cope better with the trials and tribulations of life. Protective processes encompassed a breadth of experiences and mechanisms that enable positive adaptation despite adversity, (McCubbin, Thompson, Pirner, & McCubbin, 1988). Protective processes, like risk factors, included personality and genetic characteristics, as well as external dynamics within the family, school or community environments, (Garbarino & Granzel, 2000).

Currently the third model approach of resilience theory has become widely accepted. With regards to individuals found in
the stage of adolescence the third model had analyzed the risk and protective factors associated to resiliency. As Compas, Malcarne & Fondacarco (1998) indicated that individual characteristics, familial and social environment situations accounted for the resilience status of adolescents as illustrated on Table one.

Table 1: Risk and Protective factors of Adolescent Development

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>PROTECTIVE FACTORS</th>
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<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
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<tr>
<td>Gender Status: girls during the adolescence stage</td>
<td>Cognitive skills: proper social cognitive skills development, at least average intelligence</td>
</tr>
<tr>
<td>Adolescence stage: individuals in early adolescence stage</td>
<td>Coping skills: problem solving skills, internal locus of control, positive sense of humor</td>
</tr>
<tr>
<td>School Problems: scholastic demoralization and school failure</td>
<td>Sense of purpose</td>
</tr>
<tr>
<td>Skill developmental delays: low intelligence, and social incompetence</td>
<td></td>
</tr>
<tr>
<td>Emotional difficulties: apathy, low self-esteem, poor management of emotions</td>
<td></td>
</tr>
<tr>
<td><strong>Familial Situations</strong></td>
<td></td>
</tr>
<tr>
<td>Family circumstances: low social class, lack of parental support, stressful life events, family disorganization, separation, poor bonding to family members</td>
<td>Secure attachment: with care givers, other family members</td>
</tr>
<tr>
<td></td>
<td>Provision of basic needs, health care and recreation</td>
</tr>
<tr>
<td></td>
<td>Secure attachment to family members modeling positive health and social behaviors</td>
</tr>
<tr>
<td><strong>Social Environment Situations</strong></td>
<td></td>
</tr>
<tr>
<td>Little emotional and social support</td>
<td>Caring and support, sense of “community” in schools</td>
</tr>
<tr>
<td>Harsh and arbitrary student management practice in schools</td>
<td>High expectations from school personnel</td>
</tr>
<tr>
<td>Community disorganization: Community norms favorable to substance use, firearms, and crimes, extreme poverty.</td>
<td>Youth participation, involvement and responsibility in school/community activities tasks and decisions</td>
</tr>
<tr>
<td></td>
<td>Strong community bond: community norms unfavorable to substance use, discrimination and crimes.</td>
</tr>
</tbody>
</table>
According to Garmezy (1986) and Kolisang and Lourens (2002), risk factors were disabling, cultural, economic, or medical conditions that would deny or minimize opportunities and resources for a person and would place her or him in jeopardy of failing to become a meaningful member of the social environment.

Nangle and Hansen (1993), and Sroufe (1997) noted that risk factors could put adolescents in varying acute and chronic stressful circumstances. The adolescents’ potentials for resistance and recovery would depend on the accumulation of stressful events overtime, proximity of the stressful situations to each other and the connectivity of the stressful episodes. According to these researchers two or more compounding factors would reduce adolescents’ capacity to function in a meaningful and adaptive manner.

Werner and Smith (1992) further indicated some protective factors associated with overcoming the odds and manifestation of resilience in adolescents. Protective factors were those qualities or situations that would help, alter or reverse expected negative outcomes. Lyons (1991) pointed that protective factors could come from within the adolescent’s perception of the stressful situation and her/his competence to overcome the problem—called internal protective factors, and
from the adolescent’s external environment—called external protective factors.

Piaget in 1972 stated that at the developmental stage of adolescents young people would develop the ability to think rationally and implement proper problems solving strategies similar to adults. In addition to Piaget’s theory, resilience theory also indicated that such development of adolescents could be delayed due to lack of stimulation during interaction with the external environment, (Rutter, 1987/1999).

According to Aldwin (1994), Cook (1998), Seligman and Crikszentmihalyi (2000), and Tsuauung (2000) some young people would begin life with certain advantages. They would be either born with, or would develop through the interaction of genetic and environmental factors, internal strengths or qualities that enable them to cope better with life. According to these researchers, adolescents who were motivated to be observant, good at solving problems and believe in their own ability to cope with difficulties would do better in the face of adversity. Such adolescents were also more likely to understand and attribute a deeper meaning to adverse events. Furthermore, resilient adolescents were socially competent, would develop positive self-esteem and a sense of their own efficacy and ability.
Early western literatures had outlined that resilience varied across age level during the adolescence stage, (Newman & Newman, 1998). Due to generic stresses resulting from rapid physical and hormonal changes young people in their early adolescence would experience coping difficulties compared to those adolescents who had passed this stage and were in similar adverse situations. As adolescents went through middle and late adolescence stages however, their resiliency status to adversity increases, as a result of the decreasing hormonal stress effects (Hurlock, 1992). Nevertheless, as indicated by Jessor (1984), HeavyRunner and Morris (1997), Alber and Gephart (1997), and Garbino and Granzel (2000) recent cross-cultural studies found that hormonal stress effects was not common to all early adolescents, in developed and developing countries, rather a problem of few adolescents.

Werner and Smith, (1992), had indicated that intelligence level was associated with resiliency of adolescents. Resilience researches (Ross, 1991; Hawkins, Catalano and Miller, 1992; Kirby, 1994) in the field of education had found that adolescents under difficult circumstances who were attending school were found to be more resilient than those who had dropped out or never attended school. The researches indicated that those who were attending school had better
chance of developing the needed cognitive abilities than those who never attended and were in similar adverse situations. Bierman and Montminy (1993), and Black, Tobler and Sciacca (1998) also indicated that adolescents with above average intelligence and did better in schools were found to be resilient than those who had below average academic performance. Kirby (1994) further noted that adolescents would develop a sense of purpose and thus be resilient when they do better academically than other adolescents who are in similar adverse situations but doing lower than average expectations.

Gender was considered important in moderating risk and resilience. In first world countries, pre-adolescent boys reported less stress, and exhibit more distress, than girls. Boys were thus more likely to develop childhood problems, (Benard, 1991; Blaber, 1999, and Masten, 2001). According to Feindler, Ectcon, Kingsley and Dubey (1986), Gilligan (1993), and Compas, et al. (1998), this pattern was reversed during adolescence when girls experienced more distress. In many developing countries, high rates of child sexual abuse and gender-based discrimination place girls at particular psychosocial risk. According to UNAIDS (2001a) and UNICEF’s (1999) reports in these countries girls were more
likely to have to sacrifice their education, take on household responsibilities and chores and be accorded lower status than boys—all of which seemed to make them less resilient than their male counterparts.

Resilience theory also pointed out that competence could stem from adolescent’s interactions with others. The ability to access social support was significant in predicting resilience, (Garmezy, 1985; Grotberg, 1995; and Blaber, 1999). Resilient adolescents trust and enjoy secure attachments to others—confident that people in their environment would be there for them. They thus would seek and find emotional support and would be confident of their right to such support. They might relate to others in a positive manner and have the ability to see humor in difficult situations. They also would discuss difficulties with people whom they trust and respect. Werner (1984), Benard (1995), and Gormley (2000) indicated that such traits had helped adolescents under difficult circumstances to develop relationships and a network of supportive others which they drew on when difficulties arose. Benard (1995) stated that such relationships would serve as a buffer for adolescents during adversity and create opportunities for positive interaction, messages and experiences. The ability to find and make use of social support
outside of the family also was found to improve communication skills and problem-solving ability of adolescents that were in adverse situations. Studies had also found that such social support systems were especially protective for adolescents who were from low socio-economic groups, (Rolf et al., 1990).

Rutter (1990) nonetheless indicated that personal attributes of resiliency alone would merely result in competence without the role of the external environment. According to Masten et al. (1990), social environmental factors such as people, opportunities, and atmospheres all added to the resilience equation. A resilient personality was not sufficient. Rather would take the person and his or her environment so that the individual would be resilient.

Werner and Smith (1992) had identified three themes involving external protective factors that apply to home, school, and community environments: caring relationship; positive and high expectation; and opportunity for meaningful participations. Some of the most important cohort studies (Masten, et al., 1990; Aldwin, 1994; Smith & Carlson, 1997; Gormley, 2000; Masten, 2000) also indicated that resilience promoting factors remain fairly consistent with supportive
families, positive peer relationship, external networks and opportunities to develop self-esteem and self-efficacy through valued social roles being of particular importance.

Ainsworth (1972), Jessor (1992), Compas et al. (1998), Blaber (1999), and Crikszentmihalyi and Schneider (2000) indicated a caring relationship with peers or at least an adult from adolescents’ living environment was crucial to protect adolescents from the stressful effects of adversities. Nevertheless, according to Sroufe (1997), Steinberg (2000), and Waysman, Schwarzwald and Solomon (2001) the extent and nature of the supports, resources and structures available to adolescents would either build resilience or increase vulnerability. A positive emotional climate and the availability of supports and resources within the family and broader community context could serve adolescents as protective factor.

According to WHO (1999), Save the Children UK (2002) and Williamson (2002) reports, a supportive environment could also help to develop personal qualities that enable AIDS-orphan adolescents in Africa to cope with adversities which came as a result of losing their parents. These resources would take the form of social relationships, as opposed to facilities that need to be made available. Positive social relationships
would make adolescents feel important and give them a sense that others were concerned about them.

In his early construct of Attachment theory in 1967, Bowlby had noted that feeling secure, loved and accepted by more than one person was an important resilience factor during infancy and early childhood periods. However, Ainsworth (1972), Herrenkohl (2000), Grotberg, (1995), and Hawkins, Catalano and Miller (1992), pointed out that beyond infancy and periods of childhood, security of attachment was also important during the developmental stage of adolescents and it could be demonstrated by the time spent with adolescents listening, showing an interest, being actively involved in what they do, think and feel, and by recognizing their achievements. Researches (Cook, 1998; Cowen, 2000; Fox, 2001; Lourens, 2003; Killian, 2004) on HIV/AIDS also indicated that when parents were terminally ill children and adolescents of Africa who began to develop a secure attachment with those who were responsible for their care once the parents had died, developed positive coping behaviors for the adversities that came afterwards. Other researches (Levine & Foster, 2000; Phiri et al., 2000; Verhoef, 2002) further noted that in many African families where care of the orphans were vested in extended family and
community members, had contributed to the resiliency of the orphans.

In addition Wingood and DiClemente (2000) and Loening-Voysey et al. (2001) in their studies on AIDS-orphans of eastern Africa pointed out that the presence of multiple caregivers who offer consistency, care and secure attachments augured well for orphans’ emotional development. The disadvantage was however indicated that those orphans, who lacked consistency in care, had drawn down to lack of security in interpersonal relationships, (Radda Barnen, 2000-2004).

Resilience theory in the analysis of adolescents in difficult circumstances, also pointed out that the availability of adequate and competent adults who would serve as consistent role models was important in molding a positive attitude and adaptive coping, (Masten et al., 1990; Benard, 1991; Smith & Carlson, 1997) Resilient adolescents whose parents were deceased seemed to be especially adept at actively recruiting surrogate parents and it was imperative that there existed adults who would make themselves emotionally and socially available to such adolescents, (Rutter, 1987; Gormley, 2000; Foster & Williamson, 2000; Foster & Jiwli, 2001).

Moreover, researches (Jessor, 1984; Feindler et al., 1986; Rutter, 1987; Beyth-Marom et al., 1989) indicated that older
peers and/or adults who provided positive role models were found to be instrumental in helping adolescents to develop strong moral values and principles to guide them through life and provide structure and form to their dreams and aspirations. Furthermore, other studies, (Lyons, 1991; Nangle & Hansen, 1993; Sroufe, 1997; Lourens, 2003) found out that realistic goal setting, combined with the motivation and support necessary to achieve such goals, were associated with resilience. A sense of belonging and feeling integral to a family, community and culture was also indicated as another key feature of resilient adolescents, (McCubbin et. al, 1988).

Researches (Weiss, Whelan & Gupta, 1996; Donahue, Jill & Williamson, 1999; Levine & Foster, 2000; Williamson, 2002;) done in Africa also noted that attachment to at least one member of the family, relatives, school or community, have promoted a healthy adjustment in HIV/AIDS-orphan children and adolescents. According to these studies, this individual would be a mentor/model to the youth, providing her/him emotional and guidance support. The mentor may give the adolescent a sense of belonging and purpose within the current living condition and value her/his abilities for future success. In addition, the model may teach closely to the adolescent
strategies (positive coping mechanisms) they would help in avoiding emotional disturbances and troubles in life.

Resilience theory further indicated that positive and high expectations from the social environment would promote competence in adolescents in the face of adversities. Caregivers and/or community members assigning tasks to adolescents with achievable but yet higher level activities would create a sense of purpose and foster resilient personality in adolescents, (Werner, 1984; Aldwin, 1994; Smith & Carlson, 1997; Crikszentmihalyi & Schneider, 2000; Gormley, 2000).

In addition, other researchers (Beyth-Marom et. al, 1989; Ross, 1991; Kirby, 1994; Masten & Coatsworth, 1998) reported that schools with special programs for students under difficult circumstances would promote resiliency by providing a positive and safe learning environment, along with setting high, yet achievable, academic and social expectations. Lyons (1991), WHO (1999), Seligman and Crikszentmihalyi, (2000), and Waysman, et al., (2001), noted that school personnel, especially teachers, had provided protective factors for adolescents by conveying an attitude of compassion, understanding and respect for the student. In their studies Jessor, (1992), Blaber, (1999) and Herrenkohl, (2000)
indicated that teachers were the most frequently encountered positive role models outside the family, and a caring relationship between teachers and students would develop resilience and life skills among students with problems.

According to Masten and Coatsworth, (1998), resilient adolescents also tend to have a sense of purpose and future orientation, combined with a sense of usefulness. Werner (1984) identified 'required helpfulness'—wherein would have set responsibilities and tasks in the home, community and/or school, such as taking care of siblings or relatives, or being responsible for animals or pets—as a resilience factor. Bierman and Montminy (1993) in their studies across culture found that male adolescents would prefer and do better when given tasks and clear routines, whereas female adolescents would benefit from responsibilities such as caring for others.

Researches (Children and AIDS International Network, 1998; Healthlink Worldwide, 1998; Levine & Foster, 2000; Mark, 2000; Loening-Voysey et. al, 2001) on Africa also indicated that family members, institutions, schools, and communities would encourage resiliency in AIDS-orphan adolescents, by providing opportunities for meaningful participation in activities. Lourens (2003) and Killian (2004) indicated that active participation in school clubs, youth clubs, sport clubs,
and involvement in community associations would create a sense of belongingness and purpose for AIDS-orphan adolescents of Africa who often perceived themselves isolated from the society.

Other researches (Donahue et al., 1999; Grainger et al., 2001; Phiri et al., 2001; Lourens, 2003) also noted that after-school programs and recreational opportunities offered by schools or neighborhood associations would provide resiliency for AIDS-orphan adolescents, which would give them an opportunity to vent out pent up energy by preserving them from delinquent activities. In addition, WHO and UNICEF, (1994) joint report indicated that opportunities for volunteer activities and gainful employment in schools and communities had created a sense of meaningfulness in many AIDS-orphan adolescents thus fostered resiliency.

As indicated above resilience theory approaches seemed to be accepted by other researches done in different parts of the Africa at different socio-cultural contexts. However, critiques have tried to point out some limitations of the theory and questioned its applicability.

Newman, Tony and Blackburn (2002) have indicated many scholars and practitioners views of the resilience theory. One
view of these critiques was the deceptiveness of resilience theory. Many health and welfare workers claimed that great sacrifice and pain were to be endured for a person to display resilience and that these tremendous stress and adversity would result in health and emotional difficulties. These practitioners pointed that it would be better to protect individuals especially children and adolescents from such costly approach of promoting resilience.

However, Grotberg (1995), Werner and Smith (1992), Seligman and Crikszentmihalyi (2000), Rutter (1985/1987), and Kolisang and Lourens (2002) stressed that encountering moderate adversities and risks were vital which would provide opportunities for growth and adaptation in children and adolescents going through a transitional period. According to the theory, positive human development was not simply a matter of eliminating risk factors and promoting resilience. Rather the successful management of risks was a powerful resilience-promoting factor in itself. Learning from challenging and moderate risks would create in children and adolescents immunity to future similar adversities faced in later lives. Resilience could only develop through exposure to stressors with gradual exposure to difficulties at manageable level.
Newman et al. (2002) further indicated that some critiques of 
the theory had questioned the optimistic view of the theory 
that every individual had the potential for resistance and 
recovery from adversities. Some indicated research findings 
that individuals at different age level could not revive from 
their problems despite provisions of protective factors.

However Resilient theorists (Maddi and Khoshaba, 1994; 
Cook, 1998; and Tsuaung, 2000) responded that researches for 
many years in the study of human development had revealed 
adverse life events had contributed to psychiatric disorders in 
1/3 of “at-risk” children and adolescents, while others faced 
with identical participation factors have emerged unscathed. 
However, Maddi and Khoshaba, (1994) had noted that this 
finding would be less valid in children and adolescents who 
had encountered extreme and continuous adversities. 
Researches indicated that when chronic stressful events 
accumulate, children and adolescents capacity to survive 
would rapidly diminish, (Hull, Van, Treuren & Virnelli, 1987; 
Lyons, 1991; Cicchetti & Nurcombe, 1997;Waysman et al., 
2001).

Newman et al. (2002) further pointed that some critiques 
noted that Resilience Theory lacked clear-cut and specific
strategies to be used for practical application of promoting resilience to disadvantaged children and adolescents. Further they claimed that it is difficult to distinguish the theory from earlier developed approaches such as Attachment Theory and other popular positive child development promoting theories. When attempts were made to apply resilience theory, practitioners claimed it was hard to recognize its value and implications from strategies they already were using.

Nonetheless, while acknowledging these points, the weight of evidence currently available suggested that actively incorporating resilience-promoting strategies in services to children and young people could have significant potential. Ultimately, however, the utility of resilience theory would be judged by the extent to which its implementation could bring concrete and lasting benefits to children and adolescents. Further on-going researches were reported in process to better enable the young theory to be more practical and tangible.

2.2. Practical consideration

As illustrated by Foster and Williamson (2000) and International HIV/AIDS Alliance (2003) AIDS-orphan adolescents are faced with stressful situations as a result of losing their parents to HIV/AIDS disease. Challenges such as poverty, separation, loss of home, relocation, school problems,
isolation, lack of care and guidance, lack of access to basic needs, and labor and sexual exploitations have put AIDS-orphan adolescents at risk for health and behavioral problems. However, as per the researcher's observations, some AIDS-orphan adolescents in the city of Addis Ababa are seen to succeed despite facing these multiple risks and adversities in their lives. Such AIDS-orphan adolescents who have coped and bounced back from significant adverse life situations or stresses imply that they have a better level of resiliency. This study thus tried to apply the resilience theory concepts to identify some factors that might contribute to maladjustment and behavioral problems (risk factors) as well as factors that might help promote resiliency (Protective factors) in AIDS-orphan adolescents.

As resilience theory indicated risk factors involve all adverse conditions that deny or minimize opportunities and resource for an individual placing her or him in jeopardy of failing to be a meaningful member of home, school and community. Risk factors can be internal (within the individual) or external (involving the family, school, and community).

As indicated by International HIV/AIDS Alliance (2003) AIDS-orphan adolescents internal risk factors include all the emotional difficulties (primary stress factors) they experience
as a result of losing their parents due to HIV/AIDS disease. 
External risk factors for AIDS-orphan adolescents include all 
conditions in the environment (secondary stress factors) such 
as poverty, separation, loss of home, relocation, school 
problems, isolation, lack of care and guidance, lack of access 
to basic needs, and labor and sexual exploitations, community 
disorganization, and high crime prevalence in the area.

As implied by resilience theory approaches a considerable 
number of AIDS-orphan adolescents who grew up in such 
challenges have the capacity to overcome the odds of their 
lives and manifest resiliency in the presence of protective 
factors. The researcher also believes that these protective 
factors can help alter or reverse expected negative outcomes 
that would have resulted due to the risk factors presented in 
AIDS-orphan adolescents’ lives. The same as risk factors 
protective factors can also be internal (within the individual) 
and external (involving the family, school, and Community).

As indicated by resiliency theory approaches (Rutter 1990; 
Masten et al., 1990) individual attributes such as the ability to 
use their cognitive and coping skills would help AIDS-orphan 
adolescents to be resilient when they are faced with multiple 
adversities in their lives. However, in order to develop these 
internal protective factors the roles of external protective
factors were very important. Like risk factors, external protective factors can be found in the homes, schools and communities of AIDS-orphan adolescents. As indicated by resiliency theory three themes: caring relationships, positive and high expectations, and opportunities for meaningful participation are involved in the external protective factors which apply to each of these social environments.

Protective factors in the home that promote these themes involve an attachment to at least one family member who engages in proactive, healthy behavior with adolescents. The individual may give the youth a sense of belonging and purpose within the family unit and value her or his abilities and may additionally tell the youth she or he can and will be successful. In AIDS-orphan adolescents' case, caregivers and older siblings could acknowledge the important roles that the adolescents are playing in looking after their younger siblings. Caregivers could also assist in guiding AIDS-orphan adolescents in solving difficult problems in life in addition to providing basic necessities.

As indicated in resilience theory, the researcher believes that schools can help AIDS-orphan adolescents to develop resiliency by providing a positive and safe learning environment, along with setting high and yet achievable
academic and social expectations. Academic clubs or social organization forums sponsored and supported by the school can provide meaningful participation for youth, making it less likely that they will fail or demonstrate deviant or antisocial behaviors. Furthermore, teachers and school personnel can provide protective factors for AIDS-orphan adolescents by conveying an attitude of compassion, understanding, and respect for students. A teacher is the most frequently encountered positive role model outside the family, and a caring relationship often develops between students and teacher. Teachers who offer trustworthiness, sincere interest, and individual attention and who use rituals and traditions would create open minds for students to learn.

Considering the social structure of AIDS-orphan adolescents of Addis Ababa community protective factors include neighborhoods, government body workers, religious leaders, service sectors and welfare organizations’ workers that offer a context where adolescents can be exposed to positive influences in the community. Such community agent can be mentors in teaching AIDS-orphan adolescents strategies for avoiding trouble and interacting positively with others. Other community support factors include after-school programs and recreational opportunities offered by the local government.
bodies (Kebeles) or by neighborhood associations (i.e. Iddirs).

As the resilience theory implied community-based youth programs offered during non-school hours, in conjunction with family and school efforts, can provide the critical community support necessary to prevent maladaptive behaviors in AIDS-orphan adolescents. Voluntary activities in the community and gainful employment opportunities also can promote resiliency in AIDS-orphan adolescents of Addis Ababa.

The researcher believes that understanding the risk and protective factors is the first step that members of the social environment can take to promote resiliency in AIDS-orphan adolescents. Bringing together all the people in AIDS-orphan adolescents' social environment who know and care about them is the next step. In fact based on the researcher's observation, collaboration among caregivers, schools, and community agencies might be the only effective means in which resiliency could be fostered in AIDS-orphan adolescents.

Resilience is a fairly new concept for describing behavior and the language of resiliency gives a set of rules to use in promoting resilience in AIDS-orphan adolescents. AIDS-orphan adolescents can pull protective factors from three
sources of resiliency. First AIDS-orphan adolescents have to see from their internal sources whether they have the personal strengths, feelings, attitudes, and beliefs that would help them be competent in the faces of their multiple adversities. Secondly AIDS-orphan adolescents have to check from familial sources whether the supports and resources provided are sufficient to help them be resilient. Further, from the social environment source AIDS-orphan adolescents have to seek for positive interactive environment in the community and schools that would help them in developing the needed cognitive and coping skills, and that would assist them in acquiring matured resilient personality. These three sources are tools that can help to foster resiliency in AIDS-orphan adolescents by strengthening internal protective factors which are helpful for adaptable behaviors in the face of their multiple stressors.
Chapter 3

3. Methodology and Design of the Study

3.1. Design of the study

The research was designed to quantitatively evaluate the resilience status of AIDS-orphan adolescents as a dependent variable, and possible factors of resilience such as age level, gender, education status, academic performance, living arrangement, years of living in the community, crime prevalence in living area, access to basic needs, proximities of years of parental deaths, current emotional states, coping mechanisms, participations in community activities, involvement in income generating activities, and availabilities of attachment figures in the area as independent variables.

3.2. Study Area (Site)

The study was conducted in Addis Ababa, in randomly selected 12 local administrations (Kebeles) found in four sub-cities, namely Kolfe-Keranio, Kirkos, Lideta, and Gulele out of the ten sub-cities of the capital city. The researcher using lottery sampling method selected the four sub-cities and from each selected sub-cities three Kebeles were chosen from constituting Kebeles in a single sub-city using the same
sampling method. Namely the study area were; from Kolfe-Keranio Sub-City-Kebele 01, 04, and 06; from Kirkos Sub-City-Kebele 06, 08, and 09; from Lideta Sub-City-Kebele 07, 14, and 15; and from Gulele Sub-City-Kebele 02, 10, and 12.

3.3. Population and Sampling

In Ethiopia more than one million AIDS-orphans were reported to live in rural and urban areas, (Tsegaye, 2001). According to Mulugeta & Rebecca (2000), and Tsegaye (2001) reports, 40% of Ethiopia’s AIDS-orphan generations live in urban areas. Although a comprehensive data were not available, the majority of the country’s urban AIDS orphan population was reported to be found in Addis Ababa, (Mattanovich, 2005). These reports however included all AIDS-orphans of all ages below 13 years up to 18 years of age. Moreover, these estimates have included single-orphans in which only one of the parents were deceased due to HIV/AIDS. The researcher could not however find the exact estimate of AIDS-orphan adolescents in the range of 13-18 years of ages, who lost both of their parents and who were residing in the city of Addis Ababa.
Nonetheless, from the 12 selected Kebeles residents' list a total of 3648 AIDS-orphan adolescents who have lost both of their parents were put together and a sample size of 300 (about ten percent) was selected using the lottery sampling method. Out of the selected 300 respondents however, 12 of them submitted incomplete responses on the questionnaire administered whereas 22 other respondents did not submit their responses at all. These left the research analysis to be limited to 266 valid respondents who had completed the questionnaire and submitted in time.

3.4. Tools of Data Collection and Justifications

The Connor-Davidson Resilience Scale (CD-RISC) of 25 items, each rated on a 5-point scale (0-4), was used to measure the stress coping ability of respondents with higher scores reflecting greater resiliency. A major advantage of the CD-RISC was its simplicity, which enabled an accurate and reliable translation from English to Amharic and vice versa, thereby minimizing the potential for cultural misunderstandings. Secondly, the CD-RISC had been developed recently, in 2003 to remedy limitations of earlier resilience scales, and had been tested across cultures in various studies of non-psychiatric populations of 12 years of
age and greater, (Connor et al., 2003). CD-RISC was reported to have sound psychometric properties with greater reliability and validity compared to other resilience scales, (Carlson, 2001). When CD-RISC was tested across different psychiatric and non-psychiatric groups for reliability and internal consistency, as indicated by Conner et al. (2003) the average Cronbach’s alpha for the full scale was 0.89 and item-total correlations ranged from 0.30 to 0.70 respectively. Further convergent validity assessment indicated that CD-RISC scores were positively correlated with Kobasa Hardiness measure in psychiatric and non-psychiatric population. Compared to the perceived stress scale, the CD-RISC showed a significant negative correlation, indicating that higher levels of resilience corresponded with less perceived stress. The Sheehan stress vulnerability scale was similarly negatively correlated with the CD-RISC in different psychiatric and non-psychiatric population. The result also indicated that higher levels of resilience corresponded to lower levels of perceived stress vulnerability. As measure of disability, the CD-RISC demonstrated a significant negative correlation with the Sheehan Disability Scale in generalized anxiety disorder patients and post-traumatic stress disorder patients. Lastly the Sheehan Social Support Scale correlated significantly with the
CD-RISC. Thus greater resilience, as expected was associated with less disability and greater social support. Discriminant validity assessment indicated that CD-RISC was not significantly correlated with the Arizona Sexual Experience Scale at baseline or at end point in generalized anxiety disorder patients.

The researcher tried to adapt CD-RISC in to the Ethiopian situation. The researcher at first translated CD-RISC to Amharic language and gave it to two psychometricians in Addis Ababa University along with the original items, to accept feedback on content validity. Since CD-RISC is simple and easy to translate in to Amharic, minor words and structural arrangements were made by the psychometricians and pilot testing was conducted on 30 AIDS-orphan adolescents who were members of Tesfa-Berehan AIDS-orphans association. Analysis of reliability showed a Crombach alpha of 0.77 for the translated Amharic CD-RISC scale closer to the original CD-RISC reliability result.

The research has also developed a self-administered questionnaire based on instruments used by other studies. Most of the question items in the questionnaire were adapted from Compas et al. (1998) and International HIV/AIDS Alliance (2003) studies on adolescents. However the
attachment questions were adapted from Hawkins et al. (1992), Grotberg (1995) and Herrenkohl (2000) studies.

At first the total number of question items developed for the questionnaire was 32. With the Amharic translated version of CD-RISC, the 32 developed questionnaire items were also pilot tested on the 30 AIDS-orphan adolescents. After pilot testing however vague, confusing and repeating questions were omitted decreasing the amount of question items to be 24. Furthermore, some questions’ forms of presentation were changed. In addition, alternatives of question items were made user friendly incorporating alternatives which were not included at first. And the final revised 24 items questionnaire was used to collect data for the analysis along with the Amharic translated version of CD-RISC.

The 24 item self-administered questionnaire has demographic items, such as age level, gender, school status, living situation, and items which enquired their current familial and psychological and social situations such as proximities of years of parental deaths, current emotional states, coping mechanisms, participations in clubs/associations, involvement in income generating activities, and availabilities of attachment figures. Questionnaire method was for the reasons
of simplicity and timeliness of administering and analyzing a greater number of responses with minimum instructions. Most respondents were literate and for few who were unable to fill their responses, they were assisted through questionnaire based interview method by eight trained data collectors who were also AIDS-orphan adolescents, themselves. This was believed to create reliable information for the few illiterate respondents by providing a comforting atmosphere during interview due to their status's similarity with the data collectors.

3.5. Procedure of Data Collection

The CD-RISC and the questionnaire were administered to the respondents through eight trained volunteers AIDS-orphan adolescents in a period of three and half weeks.

In the first week of the data collection period, the researcher made formal contact with the selected Kebele’s HIV/AIDS Division through a letter from Addis Ababa University department of psychology. All the HIV/AIDS Division in the 12 Kebeles of the four sub-cities cooperated in providing AIDS-orphans list registered in each Kebele with their residential addresses. From the Kebeles sub-cities' anti-AIDS clubs, eight AIDS-orphan adolescents were voluntarily chosen
and made an agreement with the researcher on the amount of allowance (25 Birr/day) and how to go about the data collection period.

In the next three days of the week, the volunteer AIDS-orphan adolescents were trained pair-wise at nearby Kebeles' halls on how to assist respondents fill their responses in the questionnaire and inventory.

In the last two weeks of data collection period, each of the eight trained data collectors went out to collect data from the selected AIDS-orphan adolescents in their respective living areas. On average a list of 37 AIDS-orphan adolescents were given to each data collector with the respondents' residential addresses. By explaining the purpose of the questionnaire, about the confidentiality of their responses and how to fill up responses to the respondents, the data collectors left the questionnaires with those respondents who could read and write so that they filled up their responses privately at their convenient place or time in the given five days time. For those respondents who were unable to read and write though the data collector were instructed to collect information using questionnaire based interview method at convenient place and time. After five days, the data collectors started to collect the questionnaires from the respective respondents and at the end
of the three and half weeks of data collection period most of the data collectors had submitted the filled questionnaires. During the last two-weeks of the data collecting period, the researcher made contact with each of the eight data collectors (physically as well as through the telephone) and monitored their activities. During these contact periods with the data collectors, the researcher assisted each of them on how to go about with problems encountered on the data collecting periods by forwarding comments and suggestions.

3.6. Methods of Data Analysis

The 266 valid data of the respondents were coded and analyses were made by using the SPSS 11.0 computer program. The cumulative scores of the 266 respondents' were split using the mean split deviation method in three levels; higher, middle, and lower resiliency based on frequency distributions. The researcher then evaluated the effects of each independent variable on the dependent variable-resilience status so that risk factors and protective factors were outlined. In order to test for significance differences in the different permutations of grouping variables, two types of analyses were run: T-tests and Analysis of Variance (ANOVA).
CHAPTER FOUR

4. Results and Discussion

4.1. Results

The valid responses of 266 respondents were considered for the analysis out of the target group of 300. Based on the responses of the valid 266 respondents to the questionnaire and test items the following results were obtained. Using mean split method about one-third of the sampled respondents were found to be highly resilient whereas the rest two-third of the respondents were found to have average and below-average resilience, respectively. The result analyses indicated that each independent variable such as gender, education status, living arrangement, access to basic need supplies, crime prevalence in living area, coping mechanisms, involvement in school/community associations, and availability of attachment figure had statistically significant effect on the resilience status of respondents. On the other hand, t-test and analysis of variance methods also indicated that each independent variable such as age level, engagement in gainful job activities, proximity of years of parental death and emotional status did not have statistically significantly effect on resilient status of respondents. Following the findings of this study
were presented using numbers and Tables as desirable. An alpha level of .05 was used for all statistical tests.

Using mean split method, the cumulative scores of each valid respondent to Conner-Davidson Resilience Scale (CD-RISC) were put in three groups where 88 (P=33.08, M=67.28, SD=10.636) of the 266 valid respondents qualified as high resilience. Whereas 90 (P=33.83, M=56.76, SD=12.892) of the respondents were grouped in the medium resilience category and the rest 88 (P=33.08, M=40.13, SD=18.282) of the respondents were found to be in the low resilience group. The maximum score of respondents on the CD-RISC was 96 and the minimum was 9 Marked from 100 based on their responses on the five point scale for the 25 items listed, as illustrated on Table 2.

Table 2
Summary of AIDS-orphan Adolescents’ Resilience Status on Connor-Davidson Resilience Scale

<table>
<thead>
<tr>
<th>Statistics</th>
<th>All Groups</th>
<th>Low Group</th>
<th>Medium Group</th>
<th>High Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>266</td>
<td>88</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>Mean</td>
<td>54.74</td>
<td>40.13</td>
<td>56.76</td>
<td>67.28</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>18.09</td>
<td>18.282</td>
<td>12.892</td>
<td>10.636</td>
</tr>
<tr>
<td>Variance</td>
<td>327.259</td>
<td>334.249</td>
<td>166.209</td>
<td>113.125</td>
</tr>
<tr>
<td>Minimum</td>
<td>9</td>
<td>9</td>
<td>43</td>
<td>57</td>
</tr>
<tr>
<td>Maximum</td>
<td>96</td>
<td>74</td>
<td>79</td>
<td>96</td>
</tr>
<tr>
<td>Sum</td>
<td>14560</td>
<td>3531</td>
<td>5108</td>
<td>5921</td>
</tr>
</tbody>
</table>
132 (P=49.63) of the respondents were females and 134 (P=50.37) were males and to analyze the effect of gender on resiliency, respondents’ responses on the CD-RISC resilience scale were grouped across their gender status. As the finding showed, gender status of respondents had effect on their resilience status at alpha level of 0.05, t (264) = 2.176 p =0.03, indicating female respondents as having higher resilience than male respondents with mean and standard deviation (57.15, 16.686) and (52.36, 19.14), respectively.

In assessing the effect of age on the resilience status of respondents, the respondents age level was classified among three in the age range of 13-14 years (early adolescence), 15-16 years (middle adolescence), 17-18 years (late adolescence) with mean and standard deviation of 55.36/19.021, 52.54/17.186, 55.21/17.386, respectively. Through analysis of variance method the effect of age level was not statistically significant, at alpha level of 0.05, F (2,263) = .501 P =0.607. Further as shown on Table 3, the effect of age level was not statistically significant for female and male respondents analyzed separately, at alpha level of 0.05, F (2,129) = 2.686, P =0.097 and F (2, 131) = 0.672, P =0.442, respectively.
Table 3
Summary of Analysis of Variance (ANOVA) Results for Age and Gender Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (Mean)</th>
<th>SD</th>
<th>t-value</th>
<th>p-value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Total)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Adolescence (13-14 years)</td>
<td>123</td>
<td>42.24</td>
<td>55.36</td>
<td>19.021</td>
<td>1.582</td>
<td>0.179</td>
</tr>
<tr>
<td>Mid-Adolescence (15-16 years)</td>
<td>54</td>
<td>20.30</td>
<td>52.54</td>
<td>17.186</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adolescence (17-18 years)</td>
<td>89</td>
<td>33.46</td>
<td>55.21</td>
<td>17.386</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (Female)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Adolescence (13-14 years)</td>
<td>57</td>
<td>21.43</td>
<td>57.47</td>
<td>15.943</td>
<td>2.007</td>
<td>0.097</td>
</tr>
<tr>
<td>Mid-Adolescence (15-16 years)</td>
<td>28</td>
<td>10.53</td>
<td>51.21</td>
<td>20.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adolescence (17-18 years)</td>
<td>47</td>
<td>17.67</td>
<td>60.30</td>
<td>14.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (Male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Adolescence (13-14 years)</td>
<td>66</td>
<td>24.81</td>
<td>53.53</td>
<td>21.279</td>
<td>0.941</td>
<td>0.442</td>
</tr>
<tr>
<td>Mid-Adolescence (15-16 years)</td>
<td>26</td>
<td>9.78</td>
<td>53.96</td>
<td>13.548</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adolescence (17-18 years)</td>
<td>42</td>
<td>15.79</td>
<td>49.52</td>
<td>18.616</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p < .05

As shown on Table 4 the relationship of education status of respondents was analyzed to the resilience scores of respondents. For resilience status of respondents, education status of respondents, was statistically significant at alpha level of 0.05, F(3,262)=4.591, p=0.04. In order, respondents attending school (M=56.1, SD =17.524) indicated significantly greater resilience than did those who dropped-out of school (M=53.81, SD= 17.643), completed high school (M=45.33, SD=22.159) and never attended (M=35.0, SD=18.67).
Table 4  
Summary of Analysis of Variance (ANOVA) Results for Education Status Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Current Education Status</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (Mean)</th>
<th>SD</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending School</td>
<td>207</td>
<td>77.82</td>
<td>56.10</td>
<td>17.524</td>
<td>4.591*</td>
<td>.004</td>
</tr>
<tr>
<td>Completed high School</td>
<td>9</td>
<td>3.38</td>
<td>45.33</td>
<td>22.159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop-out</td>
<td>42</td>
<td>15.79</td>
<td>53.81</td>
<td>17.643</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Attended School</td>
<td>8</td>
<td>3.01</td>
<td>35.00</td>
<td>18.670</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05

For the question that asked respondents perception of their current education performance 137 (P=51.5) of them with CD-RISC resilience test mean score of 56.24 and standard deviation of 15.23 indicated that they were academically average whereas 44 (P=16.53) of the respondents with CD-RISC resilience test mean score of 64.48 and standard deviation of 18.74 reported that they had good academic performance. On the other hand 32 (P=12.03) respondents with CD-RISC resilience test mean score of 44.25 and standard deviation of 17.33 reported that they had poor academic performance. However 53 (P=19.92) of the respondents gave no response to this question item. Although 53 respondents (M=49.09, SD=20.122) did not indicate their level of academic performance, the effect of academic performance on the resilience score of respondents in order is
statistically significant for those who indicated as good (M=44, SD=18.741), average (M=56.24, SD=15.233), and poor (M=44.25, SD=17.335) at alpha level of 0.05, F(3,626)=10.987, P=0.000. Table 5 illustrates the findings.

Table 5
Summary of Analysis of Variance (ANOVA) Results for academic Variables
Predicting Resilience

<table>
<thead>
<tr>
<th>Current Academic Performance</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Response</td>
<td>53</td>
<td>19.92</td>
<td>49.09</td>
<td>20.122</td>
<td>10.987*</td>
<td>0.000</td>
</tr>
<tr>
<td>Average</td>
<td>137</td>
<td>51.50</td>
<td>56.24</td>
<td>15.233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>44</td>
<td>16.54</td>
<td>64.48</td>
<td>18.741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>32</td>
<td>12.03</td>
<td>44.25</td>
<td>17.335</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05

In assessing respondents current living arrangement effect on resilience scores of the respondents, it was found to have statistically significant effect of at alpha level of 0.05, F(5,260)=3.804, P=0.02. In order, respondents living with siblings, (M=59.5, SD=17.281), showed greater resilience scores than those living with extended families (M=52.18, SD=20.427), adopting families (M=47.94, SD=22.590), alone (M=53.3, SD=20.427), with friends (M=34.5, SD=13.435), and in an orphanage (M=33.0, SD=5.657). Summary of the results is illustrated on Table 6.
Table 6
Summary of Analysis of Variance (ANOVA) Results for Living Arrangement Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Current Living Arrangement</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopted</td>
<td>16</td>
<td>6.0</td>
<td>47.94</td>
<td>22.590</td>
<td>3.804*</td>
<td>.002</td>
</tr>
<tr>
<td>Alone</td>
<td>20</td>
<td>7.5</td>
<td>52.30</td>
<td>20.427</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended Family</td>
<td>114</td>
<td>42.9</td>
<td>52.18</td>
<td>16.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live with Siblings</td>
<td>112</td>
<td>42.1</td>
<td>59.50</td>
<td>17.281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orphanage</td>
<td>2</td>
<td>.8</td>
<td>33.00</td>
<td>5.657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renting with friends</td>
<td>2</td>
<td>.8</td>
<td>34.50</td>
<td>13.435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05

In assessing the effect of years of living in the current residing area, as shown on Table 7 the analysis found statistical significance on the resilience status of respondents at alpha of 0.05, $F(4,261)=3.932$, $P=0.004$. In order, 60 ($P=22.6$, $M=61.07$, $SD=19.083$) respondents who lived in the current living area in the year range of 11-15 years scored higher resilience status, followed by 7 ($P=2.6$, $M=58.86$, $SD=18.854$), 88 ($P=33.1$, $M=55.68$, $SD=17.092$), 52 ($P=19.5$, $M=51.54$, $SD=18.687$), and 59 ($P=22.2$, $M=49.22$, $SD=16.055$) respondents who lived in their current living area in the range of 11-15 years, below one year, above 15 years, in the range of 6-10 and 1-5 years, respectively.
Table 7
Summary of Analysis of Variance (ANOVA) Results for Years of living in the current area Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Years of Living in the Area</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 1 Year</td>
<td>7</td>
<td>2.6</td>
<td>58.86</td>
<td>18.854</td>
<td>3.932*</td>
<td>0.004</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>59</td>
<td>22.2</td>
<td>49.22</td>
<td>16.055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 Years</td>
<td>52</td>
<td>19.5</td>
<td>51.54</td>
<td>18.687</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-15 Years</td>
<td>60</td>
<td>22.6</td>
<td>61.07</td>
<td>19.083</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 15 Years</td>
<td>88</td>
<td>33.1</td>
<td>55.68</td>
<td>17.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05

Respondents’ criminal prevalence in current living areas was also assessed, where 24(P=9, M=63.96, SD=15.281), 92(P=34.6, M=54.52, SD=18.084) and 150(P=56.4%, M=53.39, SD=18.196) of the respondents indicated that they did not know whether crime existed in their area; it did not exit, and it existed, respectively. For resilience status of respondents, the effect of living in crime prevailing areas was statistically significant at alpha of 0.05, F(2,263)=3.608, P=0.028.

The study also analyzed the effect of having access to basic needs on resilience status of respondents. As illustrated on Table 8, access to shelter, and recreational facilities were not significantly related to resilience status at alpha level of 0.05, t(264)=0.809, P=0.421 and t(264)=1.02, P=0.327,
respectively. On the other hand, however access to regular meal, clothing, medical care, counseling services and school facilities were statistically significant at alpha level of 0.05, \( t(264) = -1.987, P = 0.25; \ t(264) = 3.65, P = 0.000; \ t(264) = 3.957, P = 0.000; \ t(264) = 2.1, P = 0.045 \) and \( t(264) = 2.409, P = 0.017 \), respectively.

Table 8

Summary of T-Test Results for Access to basic needs

<table>
<thead>
<tr>
<th>Variables Predicting Resilience</th>
<th>N</th>
<th>Percent</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>t-value</th>
<th>p-Value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NIUTRITION</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>44</td>
<td>16.5</td>
<td>60.18</td>
<td>20.347</td>
<td>-1.987*</td>
<td>.025</td>
</tr>
<tr>
<td>yes</td>
<td>222</td>
<td>83.5</td>
<td>53.66</td>
<td>17.458</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLOTHING</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>no</td>
<td>116</td>
<td>43.6</td>
<td>50.15</td>
<td>19.253</td>
<td>-3.65*</td>
<td>.000</td>
</tr>
<tr>
<td>yes</td>
<td>150</td>
<td>56.4</td>
<td>58.29</td>
<td>16.336</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
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</tr>
<tr>
<td><strong>SHELTER</strong></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>no</td>
<td>65</td>
<td>24.4</td>
<td>56.43</td>
<td>20.030</td>
<td>.809</td>
<td>.421</td>
</tr>
<tr>
<td>yes</td>
<td>201</td>
<td>75.6</td>
<td>54.19</td>
<td>17.435</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEDICAL FACILITIES</strong></td>
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</tr>
<tr>
<td>no</td>
<td>211</td>
<td>79.3%</td>
<td>52.82</td>
<td>18.460</td>
<td>-3.957*</td>
<td>.000</td>
</tr>
<tr>
<td>yes</td>
<td>55</td>
<td>20.7%</td>
<td>62.07</td>
<td>14.547</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COUNSEL SERVICES</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>243</td>
<td>91.4%</td>
<td>54.11</td>
<td>18.216</td>
<td>-2.1*</td>
<td>.045</td>
</tr>
<tr>
<td>yes</td>
<td>23</td>
<td>8.6%</td>
<td>61.35</td>
<td>15.549</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCHOOLING</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>184</td>
<td>69.2%</td>
<td>53.21</td>
<td>19.237</td>
<td>-2.409*</td>
<td>.017</td>
</tr>
<tr>
<td>yes</td>
<td>82</td>
<td>30.8%</td>
<td>58.16</td>
<td>14.748</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RECREATION</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>254</td>
<td>95.5%</td>
<td>54.53</td>
<td>18.213</td>
<td>-1.02</td>
<td>.327</td>
</tr>
<tr>
<td>yes</td>
<td>12</td>
<td>4.5%</td>
<td>59.17</td>
<td>15.248</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05
In assessing the relationship between proximity of years of parental death to the resilience status of the respondents, the analysis on Table 9 showed that there was no significant effect of mother’s and father’s years of death on the resilience status of respondents at alpha level of 0.05, F(4, 261)=1.865, P=0.117 and F(4,261)=2.179, P=0.072, respectively.

Table 9
Summary of Analysis of Variance (ANOVA) Results for Years Proximity of Parental Death Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Years Since Parents' Death</th>
<th>N</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years since Mother’s Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 1 Year</td>
<td>9</td>
<td>60.00</td>
<td>16.598</td>
<td>1.865</td>
<td>0.117</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>144</td>
<td>54.14</td>
<td>16.867</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10 Years</td>
<td>97</td>
<td>53.59</td>
<td>20.123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-15 Years</td>
<td>10</td>
<td>59.50</td>
<td>10.427</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 15 Years</td>
<td>6</td>
<td>71.83</td>
<td>17.725</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>54.74</td>
<td>18.090</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Years since Father’s Death |    |                   |        |          |         |
| Below 1 Year               | 10 | 58.20             | 21.054 | 2.179    | 0.072   |
| 1-5 Years                  | 100| 55.42             | 16.491 |          |         |
| 6-10 Years                 | 109| 51.42             | 18.816 |          |         |
| 11-15 Years                | 31 | 60.68             | 18.476 |          |         |
| Above 15 Years             | 16 | 59.38             | 17.385 |          |         |
| Total                      | 266| 54.74             | 18.090 |          |         |

Note. p < .05

In assessing emotional statuses of the respondents 55(P=20.68, M=55.20, SD=16.151) indicated for having depression, 80(P=30.08, M=52.41, SD=19.442) for having feeling of guilt,
122 (P=45.86, M=55.79, SD=17.239) for having a feeling of sadness, 100 (P=37.59, M=53.09, SD=17.586) for having a feeling of loneliness, 47 (P=17.67, M=56.85, SD=16.277) for having a feeling of confusion, 63 (P=23.68, M=51.57, SD=17.108) for having a feeling of low-self-esteem, 66 (P=24.81, M=51.86, SD=19.594) for having feeling of hopelessness, and 8 (P=3.0, M=51.13, SD=4.704) for having anxiety feelings over the past month. Analysis of effects of the emotional state and resilience score were computed and as illustrated on Table 10 no significant relations were found for the emotional states; depression, guilt, sadness, loneliness, feelings of confusion, having low self-esteem, feelings of hopelessness, lack of confidence, and feeling of anxiety at P > 0.05, t(264)=0.231, p=0.818; t(264)=-1.318, p=0.190; t(264)=0.877, p=0.381; t(264)=-1.166, p=0.245; t(264)=-1.409, p=0.341; t(264)=-1.653, p=0.101; t(264)=1.412, p=0.162; and t(264)=-1.846, p=0.085; respectively.
Table 10
Summary of T-Test Results for Emotional State Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Respondents Emotional States in one Month</th>
<th>N</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>T-Value</th>
<th>p-Value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPRESSION</td>
<td>YES</td>
<td>55</td>
<td>55.20</td>
<td>16.151</td>
<td>0.231</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>211</td>
<td>54.62</td>
<td>18.596</td>
<td>-1.318</td>
</tr>
<tr>
<td>GUILT</td>
<td>YES</td>
<td>80</td>
<td>52.41</td>
<td>19.442</td>
<td>-1.283</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>186</td>
<td>55.74</td>
<td>17.436</td>
<td>-1.666</td>
</tr>
<tr>
<td>SADNESS</td>
<td>YES</td>
<td>122</td>
<td>55.79</td>
<td>17.239</td>
<td>0.777</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>144</td>
<td>53.85</td>
<td>18.795</td>
<td>-1.166</td>
</tr>
<tr>
<td>LONELINESS</td>
<td>YES</td>
<td>100</td>
<td>53.09</td>
<td>17.538</td>
<td>-1.057</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>166</td>
<td>56.73</td>
<td>19.368</td>
<td>-1.166</td>
</tr>
<tr>
<td>IN STATE OF CONFUSION</td>
<td>YES</td>
<td>47</td>
<td>56.85</td>
<td>16.277</td>
<td>0.957</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>219</td>
<td>54.26</td>
<td>18.459</td>
<td>-1.653</td>
</tr>
<tr>
<td>LOW SELF-ESTEEM</td>
<td>YES</td>
<td>63</td>
<td>51.57</td>
<td>17.108</td>
<td>-1.409</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>203</td>
<td>56.72</td>
<td>18.314</td>
<td>-1.846</td>
</tr>
<tr>
<td>HOPELESSNESS</td>
<td>YES</td>
<td>66</td>
<td>51.86</td>
<td>19.594</td>
<td>0.777</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>200</td>
<td>55.69</td>
<td>17.514</td>
<td>-1.653</td>
</tr>
<tr>
<td>ANXIETY</td>
<td>YES</td>
<td>8</td>
<td>51.13</td>
<td>4.704</td>
<td>-1.846</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>258</td>
<td>54.85</td>
<td>18.342</td>
<td>-1.846</td>
</tr>
</tbody>
</table>

Note. p < .05

Coping mechanisms of respondents for emotional difficulties were assessed and 159 (P=59.77, M=57.87, SD=17.077) respondents indicated that they used prayers, 64 (P=24.06, M=60.58, SD=15.8) indicated they would look for advice, 13 (P=4.88, M=50.46, SD=22.27) indicated using alcohol, 22 (P=8.27, M=35.14, SD=17.53) indicated for relying on chat 6 (P=2.25, M=49.83, SD=23.912) indicated coping by smoking cigarettes 78 (P=29.32, M=49.9, SD=17.383) pointed out that they withdrew from contacting people 45 (P=16.91, M=53.69, SD=16.42) avoiding thoughts about the stressful
situations, 14(P=5.26, M=51.07, SD=19.523) indicated coping by yelling aggressively on others 2(P=0.75, M=23.5, SD=6.364) indicated using drugs as coping mechanism, 3 (P=1.13, M=60.33, SD=8.737) indicated hurting others physically and 6(P=2.26, M=41.17, SD=10.926) indicated crying out as a coping mechanism.

As illustrated on Table 11 an independent samples t-test analysis showed positive significant relationship between using prayer and looking for advice from others as coping mechanisms, and resilience status of respondents at P<0.05, t(264)=3.462, p=0.001 and t(264)=3.257, p=0.001, respectively.

On the other hand coping mechanisms such as chat consumption, withdrawal, drug use and crying out were inversely related to the resilience status of respondents at P<0.05, t(264)=-5.485, p=0.000; t(264)=-2.892, p=0.004; t(264)=-6.792, p=0.025; and t(264)=-3.018, p=0.025, respectively. Coping mechanisms of respondents such as alcohol use, cigarette smoking, avoidance of stressful thoughts, yelling, and hurting others, were indicated for having insignificant relation with the resilience statuses of respondents, t(264)=-7.16, p=0.487; t(264)=-0.511, p=0.631;

69
t(264) = -0.460, p = 0.647; \ t(264) = -0.725, p = 0.480 \text{ and } \ t(264) = 1.095, p = 0.379; \text{ respectively.}

Table 11
Summary of T-Test Results for Coping Mechanism Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Respondents Stress Coping Mechanisms</th>
<th>N</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>T-Value</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRAYER</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>yes</td>
<td>159</td>
<td>57.87</td>
<td>17.077</td>
<td>3.462*</td>
<td>0.001</td>
</tr>
<tr>
<td>no</td>
<td>107</td>
<td>50.07</td>
<td>18.621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOOK FOR ADVICE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>64</td>
<td>60.58</td>
<td>15.800</td>
<td>3.257*</td>
<td>0.001</td>
</tr>
<tr>
<td>no</td>
<td>202</td>
<td>52.89</td>
<td>18.409</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USE ALCOHOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>yes</td>
<td>13</td>
<td>50.46</td>
<td>22.273</td>
<td>-7.16</td>
<td>0.487</td>
</tr>
<tr>
<td>no</td>
<td>253</td>
<td>54.96</td>
<td>17.875</td>
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<tr>
<td>CONSUME CHAT</td>
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</tr>
<tr>
<td>yes</td>
<td>22</td>
<td>35.14</td>
<td>17.534</td>
<td>-5.485*</td>
<td>0.000</td>
</tr>
<tr>
<td>no</td>
<td>244</td>
<td>56.50</td>
<td>17.100</td>
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</tr>
<tr>
<td>SMOKE CIGARETTE</td>
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<td></td>
</tr>
<tr>
<td>yes</td>
<td>6</td>
<td>49.83</td>
<td>23.912</td>
<td>-0.511</td>
<td>0.631</td>
</tr>
<tr>
<td>no</td>
<td>260</td>
<td>54.85</td>
<td>17.979</td>
<td></td>
<td></td>
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<tr>
<td>WITHDROW</td>
<td></td>
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<tr>
<td>yes</td>
<td>78</td>
<td>49.90</td>
<td>17.383</td>
<td>-2.892*</td>
<td>0.004</td>
</tr>
<tr>
<td>no</td>
<td>188</td>
<td>56.74</td>
<td>18.042</td>
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<tr>
<td>AVODANCE</td>
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<td></td>
</tr>
<tr>
<td>yes</td>
<td>45</td>
<td>53.69</td>
<td>16.420</td>
<td>-0.460</td>
<td>0.647</td>
</tr>
<tr>
<td>no</td>
<td>221</td>
<td>54.95</td>
<td>18.439</td>
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<td></td>
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<tr>
<td>YELL ON OTHERS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>14</td>
<td>51.07</td>
<td>19.523</td>
<td>-0.725</td>
<td>0.480</td>
</tr>
<tr>
<td>no</td>
<td>252</td>
<td>54.94</td>
<td>18.027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USE DRUG</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>2</td>
<td>23.50</td>
<td>6.364</td>
<td>-6.792*</td>
<td>0.025</td>
</tr>
<tr>
<td>no</td>
<td>264</td>
<td>34.97</td>
<td>17.948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HURT OTHERS</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>3</td>
<td>60.33</td>
<td>8.737</td>
<td>1.095</td>
<td>0.379</td>
</tr>
<tr>
<td>no</td>
<td>263</td>
<td>54.67</td>
<td>18.168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>6</td>
<td>41.17</td>
<td>10.926</td>
<td>-3.018*</td>
<td>0.025</td>
</tr>
<tr>
<td>no</td>
<td>260</td>
<td>55.05</td>
<td>18.115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05

In assessing respondents participation in any club/associations
133(P=50, M=60.10, SD=15.596) indicated for participating at
least in one community and/or school clubs/associations whereas 133 (P=50, M=49.38, SD=18.864) had not participated in any club/association. Analysis of the relationship between participating in clubs/associations indicated significant relationship between participating in clubs/associations and resilience at alpha level of p<0.05 t(264)=5.052, p=0.000.

Of the 133 (50%) who participated in club/association activities, 53 (P=19.92, M=62.47, SD=14.049) indicated for participating in anti-AIDS club, 30 (P=11.27, M=57, SD=18.557) for participating in sport clubs, 16 (P=6.01, M=62, SD=15.470) for participating in youth clubs, 7 (P=2.63, M=51, SD=9.327) for participating in mini-media clubs, 17 (P=6.39, M=64.35, SD=13.977) for involving in religious associations, 4 (P=1.50, M=78.5, SD=3.0) for participating in students clubs, and 37 (P=10.15, M=60.43, SD=17.076) indicated for participating in drama clubs.

Independent sample t-test indicated that there was a significant positive relationship between participation in clubs/associations and resilience status of respondents.

Further Table 12 illustrated that there was a significant relationship of participating in anti-AIDS club, religious clubs, student clubs and drama/music clubs with resilience status of
the respondents at $P<0.05$, $t(264)=4.184$, $P=0.000$, $t(264)=2.869$, $P=0.01$; $t(264)=12.925$, $P=0.000$; and $t(264)=2.168$, $P=0.035$, respectively. However as the Table showed there was insignificant relationship between participating in sport clubs, youth associations and media clubs, and resilience status of respondents at $P>0.05$, $t(264)=0.711$, $P=0.481$; $t(264)=1.915$, $P=0.072$; and $t(264)=-1.036$, $P=0.333$, respectively.

Table 12
Summary of T-Test Results for Involvement in Community and School Activity Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Type of Associations/Clubs Respondents Participate</th>
<th>N</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>t-value</th>
<th>p-value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTI-AIDS CLUB</td>
<td></td>
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<tr>
<td>yes</td>
<td>53</td>
<td>62.47</td>
<td>14.049</td>
<td>4.184*</td>
<td>.000</td>
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<tr>
<td>no</td>
<td>213</td>
<td>52.81</td>
<td>18.493</td>
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<td>SPORTS CLUBS</td>
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<td>yes</td>
<td>30</td>
<td>57.00</td>
<td>18.557</td>
<td>.711</td>
<td>.481</td>
</tr>
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<td>no</td>
<td>236</td>
<td>54.45</td>
<td>18.050</td>
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</tr>
<tr>
<td>YOUTH CLUBS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>16</td>
<td>62.00</td>
<td>15.470</td>
<td>1.915</td>
<td>.072</td>
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<tr>
<td>no</td>
<td>250</td>
<td>54.27</td>
<td>18.173</td>
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<td></td>
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<tr>
<td>MINI-MEDIA CLUBS</td>
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</tr>
<tr>
<td>yes</td>
<td>7</td>
<td>51.00</td>
<td>9.327</td>
<td>-1.036</td>
<td>.333</td>
</tr>
<tr>
<td>no</td>
<td>259</td>
<td>54.84</td>
<td>18.268</td>
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<tr>
<td>RELIGIOUS ASSOCIATION</td>
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</tr>
<tr>
<td>yes</td>
<td>17</td>
<td>64.35</td>
<td>13.977</td>
<td>2.869*</td>
<td>.010</td>
</tr>
<tr>
<td>no</td>
<td>249</td>
<td>54.08</td>
<td>18.175</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STUDENTS CLUB</td>
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<td></td>
</tr>
<tr>
<td>yes</td>
<td>4</td>
<td>78.50</td>
<td>3.000</td>
<td>12.925*</td>
<td>.000</td>
</tr>
<tr>
<td>no</td>
<td>262</td>
<td>54.37</td>
<td>17.983</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRAM / MUSIC CLUBS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>37</td>
<td>60.43</td>
<td>17.076</td>
<td>2.168*</td>
<td>.035</td>
</tr>
<tr>
<td>no</td>
<td>229</td>
<td>53.82</td>
<td>18.117</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *$p < .05$
For resilience status of respondents, the effect of working in income generating activities was not statistically significant at alpha level of 0.05, \( t(264) = -0.944, p = 0.346 \), where those who were not working (M=55.32, SD=17.326) scored higher than those who were working (M=52.86, SD=20.397). As shown on Table 13, most respondents in the working group were engaged in low paying and less skill demanding jobs.

Table 13
Summary of Types of Jobs that Working Respondents were Engaged

<table>
<thead>
<tr>
<th>Current Engagement in Income Generating Activities</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unengaged in any Activity</td>
<td>203</td>
<td>76.3</td>
</tr>
<tr>
<td>Unskilled Laborer</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Artist (Drama &amp; Music)</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Mechanic Assistant (at Car Repair)</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Baker (in Pastry Shop)</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>Ball Boy at Tennis Court</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Bar Waitress</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Beggar</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Electrician (at Shop)</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>House Maid</td>
<td>9</td>
<td>3.4</td>
</tr>
<tr>
<td>Librarian (at Public Library)</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Petty Trader (Self-Employed)</td>
<td>5</td>
<td>1.9</td>
</tr>
<tr>
<td>Shoe-Shiner</td>
<td>13</td>
<td>4.9</td>
</tr>
<tr>
<td>Shop Keeper</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Weaver (at a Shop)</td>
<td>7</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In assessing the availability of attachment figure in the respondents social environment that could assist them during...
difficult times respondents responses were analyzed. 165 (P=62.03, M=59.95, SD=15.89) indicated for having someone during sad times and 184 (P=69.17, M=59.36, SD=16.142) indicated having someone to look for advice to make decisions concerning their lives. 203 (P=76.32, M=58.53, SD=16.156) indicated having someone in their environment who they thought cared for their well-being. 210 (P=78.95, M=56.29, SD=17.572) reported for having someone to supply them constantly with basic needs and 172 (P=64.66, M=56.29, SD=17.572) indicated that they have someone who monitors their day to day activities. 135 (P=50.75, M=57.18, SD=17.713) respondents indicated that for having someone who makes important decisions in their lives and 141 (P=53.01, M=61.28, SD=15.104) indicated for having a life mentor whom they modeled to follow. As Table 14 illustrated respondents’ responses for the attachment questions varied from having no one in their lives to friends, relatives, siblings, teachers, neighbors, religious leaders, God, Aid organization worker, and well know personalities of the country.

T-test data analysis was used to see the effect of having someone to rely on in their social environment on the
resilience status of respondents. As Table 14 illustrated there is statistically significant relationship between having an attachment figure in sad times, for advice, for well-being, for fulfilling basic needs, for monitoring activities, for making decision and for mentoring, and the resilience status of respondents, at \( P<0.05 \), \( t(264)=6.453, P=0.000; t(264)=6.746; t(264)=6.620 \) \( P=0.000; t(264)=2.737, P=0.007; t(264)=3.918 \) \( P=0.000; t(264)=2.251, P=0.025; \) and \( t(264)=6.780, P=0.000 \), respectively.

Table 14
Summary of T-Test Results for Availability of Attachment Figure Variables Predicting Resilience

<table>
<thead>
<tr>
<th>Availability of Attachment Figure to Respondents</th>
<th>N</th>
<th>Resilience (mean)</th>
<th>SD</th>
<th>t-value</th>
<th>p-value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During Bad Times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>165</td>
<td>59.95</td>
<td>15.890</td>
<td>6.453*</td>
<td>0.000</td>
</tr>
<tr>
<td>No</td>
<td>101</td>
<td>46.22</td>
<td>18.302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>184</td>
<td>59.36</td>
<td>16.142</td>
<td>6.746*</td>
<td>0.000</td>
</tr>
<tr>
<td>No</td>
<td>82</td>
<td>44.37</td>
<td>18.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care for Wellbeing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>203</td>
<td>58.53</td>
<td>16.156</td>
<td>6.620*</td>
<td>0.000</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
<td>42.51</td>
<td>18.689</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide Basic Needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>210</td>
<td>56.29</td>
<td>17.572</td>
<td>2.737*</td>
<td>0.007</td>
</tr>
<tr>
<td>No</td>
<td>56</td>
<td>48.93</td>
<td>18.974</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>172</td>
<td>57.87</td>
<td>16.418</td>
<td>3.918*</td>
<td>0.000</td>
</tr>
<tr>
<td>No</td>
<td>94</td>
<td>49.01</td>
<td>19.637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Decision Making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>135</td>
<td>57.18</td>
<td>17.713</td>
<td>2.251*</td>
<td>0.025</td>
</tr>
<tr>
<td>No</td>
<td>131</td>
<td>52.22</td>
<td>18.197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As Mentor/Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>141</td>
<td>61.28</td>
<td>15.104</td>
<td>6.780*</td>
<td>0.000</td>
</tr>
<tr>
<td>No</td>
<td>125</td>
<td>47.35</td>
<td>18.388</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *\( p < .05 \)
4.2. Discussions

Based on this research finding presented in the result section, two-third of valid-sample AIDS-orphan adolescents were found to have at least average resilience status when measured by CD-RISC. In other words, this finding indicates that more than half of the AIDS-orphan adolescents of Addis Ababa who were included in the study, have the needed competence level to cope and function as meaningful members of society despite exposures to multiple stressful adversities in their lives as a result of losing both of their parents in HIV/AIDS. This finding agrees with the third resilience model presented by Crikszentmihalyi and Scheider (2000), McCubbin et. al (1988), and Gabrino and Gianzel (2000) which stated that resiliency often resulted for two-third segment of people facing similar stressful adversities in life. Further the result indicated that about one-third of the AIDS-orphan adolescents had below average resilience scores when measured by the resilience scale. According to Maddi and Khoshaba, (1994), Cook (1998), and Tsuang (2000) those AIDS-orphan adolescents who indicated below average resilience scores could be considered to be at great risk of developing serious psychiatric disorders as compared to the others respondents.
According to the third model resilient personality is not innate, but develops through interactions of individual characteristics and external dynamics in the social environment.

In evaluating resilience factors related to individual attributes, this study's findings has indicated that gender status, academic performance, and coping mechanisms, had significant contributions to competence level of AIDS-orphan adolescents acting as risk or protective factors. On the other hand, however, this study's results could not find any statistically significant effect of each individual characteristic's variables—such as age levels in adolescence and emotional state of AIDS-orphan adolescents on the resilience status of respondents.

Regarding gender, nonetheless, female AIDS-orphan adolescents were found to be more resilient than their male counterparts, unlike many resilient research findings, which had indicated girls in the adolescence stage were more likely to be challenged by depression problems consequently in greater risk to be less resilient, (Benard, 1991; Blaber, 1999; Masten, 2001; Feindler et. al, 1986; Gilligan, 1993; Compas et. al, 1998; and UNICEF, 1999). Although further investigations on why females AIDS-orphan adolescents of Addis Ababa became more resilient than male AIDS-orphans
are recommended, the researcher believes, female AIDS-orphans in Addis Ababa have a tradition of having a wider social supporting network in the environment than male AIDS-orphan adolescents which could have helped them to be more resilient. When adversities are face by AIDS-orphan adolescents, females would more likely have an already established network of support in their environment unlike males to have an opportunity for emotional care. In addition, females are usually found to involve in faith-based activities which would have given them a comforting ideology in the face of adversity. Moreover, as indicated by Bierman and Montminy (1993) female AIDS-orphan in adolescents period could have developed greater competency and positive coping behavior in adversities because responsibilities such as caring for younger siblings are endowed to them, unlike male adolescents who were indicated to develop competency when clear-routine tasks are given to them instead of caring responsibilities.

To identify another variable of individual attributes, risk and protective factors of AIDS-orphan adolescents' intelligence level were also analyzed through their academic performance statuses. As illustrated in the result section, this study's finding agrees with Compas et. al (1998), Bierman and
Montminy (1993), Werner and Smith (1992), and Black et. al (1998) findings that those AIDS-orphan adolescents who had at least average intelligence level (or average and above average academic performance) showed better competence level than those who had below average academic performance. This study thus indicated that having at least average intelligence level acts as protective factor for AIDS-orphan adolescents in their multiple adversities. Moreover, the low resilience status of AIDS-orphan adolescents who had below average academic performance could be explained by the additional risk factor of school problems (such as scholastic demoralization and school failure) which would total up the compounded adversities they faced in life for losing their parents in HIV/AIDS, as indicated by Compas et. al (1998). As researches (Waysman, Schwarzwald, & Solomon, 2001; Lyons, 1991; Hull, Van, Treuren & Virnelli, 1987) indicated when chronic stressful events accumulate, adolescents' competence capacity rapidly would diminish and may result in coping difficulties.

It was indicated that coping mechanism that AIDS-orphan adolescents use in their multiple stressful situation could be a risk factor or protective factor for proper eventual adaptation. As this study findings illustrated those AIDS-orphan
adolescents who look for advice in their social environment and pray during stressful times showed greater competence level than those who use substances (ie. alcohol, "Chat", cigarettes and illegal drugs), avoidance of thought, withdrawal from others, and aggression as coping mechanisms. As Gordon (1996), Masten (2001), and Masten et. al (1990) indicated AIDS-orphan adolescents who had strived to draw support from social environment had helped them to develop an appropriate problem solving skill (as protective factor) which had benefited them to have successful adaptation and positive outcomes. Regarding AIDS-orphan adolescents with greater competence level and who used prayers as coping mechanism, having religious philosophical values could have helped them as protective factor for their resiliency. As indicated by Killian (2004), Lourens (2003), Cook (2000) and Fox (2001) AIDS-orphan adolescents who are having such religious philosophical values in their lives would have become strong and must have eternalized vision of moral order with clear distinctions of acceptable and unacceptable behaviors. In other words, AIDS-orphan adolescents who used prayer and believe that faith would help in their problems would have assisted them as protective factor to have competent personality and function in an acceptable manner.
However, AIDS-orphan adolescents who indicated to use substances, avoidance of thought, withdrawal from others, and aggression as coping mechanisms in face of adversities, showed low competence level for employing inappropriate problems solving skills. As Smith and Carlson (1997), and Rolf et. al (1990) pointed poor management of stressful situations instead of dealing with the problem directly, would have reduce these AIDS-orphan adolescents capacity to function in a meaningful and adaptive manner. The same with these researchers further notes that not only such coping mechanisms would have limited the competence level of these AIDS-orphan adolescents, but also would have increased the risk of developing other health and social problems. In addition, AIDS-orphan adolescents who use substance, avoidance of thought, empathy and aggressive behaviors (such as yelling and hurting others) would delay their ability to develop appropriate cognitive and social-cognitive skills which would have developed progressively through interactions with others in the social environment. Such dalliance would result in low intelligence level and social incompetence compared to others found in adolescence stage increasing the risk factor equations against their resilience status.
This study’s finding also agrees with recent studies (Newman & Newman, 1998; Jessor, 1984; HeavyRunner & Morris, 1997; Alber & Gephart, 1997; and Granzel, 2000) of the three sub-levels of the developmental stage of adolescence. Against early literatures the study found no significant difference in resilience between AIDS-orphans in early adolescence stage and AIDS-orphans in middle and late adolescence developmental stages. The effect of generic stress that was reported to emerge at early adolescence period as a result of rapid hormonal and physiological changes was not found to be a risk factor for AIDS-orphan adolescents of Addis Ababa. Regarding gender difference, male orphan adolescents did not show much variation in their resilience level in early, middle and late adolescence period while contrary to other researches female orphans showed greater resilience in early adolescence period than female orphan adolescents in middle and late adolescence periods. Moreover female AIDS-orphan adolescents in late adolescence period showed greater competence level than female orphans found in middle adolescence period. These findings however need further investigation by consequent researches to explain why such resiliency developed in female AIDS-orphan adolescents of
early and late adolescence periods and not in female orphans found in middle adolescence period.

On the other hand, emotional states were not found to have effects on the resilience status of AIDS-orphan adolescence despite their indications for encountering depression, guilty feelings, sadness, loneliness, disorientation, low self-esteem, and feeling of hopelessness and anxiety in the month of investigation. Although individual variations were evidenced in degree of resilience, emotional difficulties seemed to be shared by AIDS-orphan adolescents. This finding is against the first resilience model which assumed risk and resilience representing opposite ends of a single spectrum. As the third model of resilience indicated variables specific to individuals and social environments, could have helped those AIDS-orphan adolescents with average and above average competence level to be resilient despite emotional stresses. Resilient adolescents might retain the baggage of sadness and unhappiness but would also have the capacity to cope with their emotional burdens. Strategies that they used to cope with the difficult might have helped the vulnerable but yet resilient AIDS-orphan adolescents although as Grotberg (1995) indicated they did not remain unscathed by adversity. This study’s findings also imply that resilient AIDS-orphan
adolescents were not protected against but were better prepared for difficulties and hardship. As indicated by Grothar (1995), Werner and Smith (1992), Seligman and Crikszentmihalyi (2000), Rutter (1985/1987), and Kolisang and Laurens (2002), the successful management of risk would have helped as powerful resilience promoting factor in itself, for the greater resilience level of AIDS-orphan adolescents.

As the study assessed the individual characteristics factors, it has also tried to see the effect of familial circumstances on the competence level of AIDS-orphan adolescents. This research has tried to see the risk and protective factors involved in the familial situation such as access to secure attachment figure as caregivers and/or mentors, in relation to their living arrangement and basic needs provision after the death of their parents.

International HIV/AIDS alliance (2003) had noted that AIDS-orphans in the first two years of experiencing multiple deaths of parents would more likely be in great risk of developing serious emotional health problems, if immediate emotional supports are not provided for them. This study finding however found no relationship between proximity of years since death of parents to the current resilience status of AIDS-orphan adolescents. In fact AIDS-orphan adolescents who lost
one or both of their parents in less than one year of time showed greater competence level than those who had lost one or both of their parents in 1-5 years and 6-10 years range. In addition those AIDS-orphan adolescents who lost one or both of their parents for more than ten years showed greater competence than those who lost one or both of their parents in 1-5 and 6-10 years of time. As indicated by the international HIV/AIDS alliance (2003), and other research (Killian, 2004; Leuren, 2003; Cook, 1998; Cowen, 2000; Fox, 2001) reports those AIDS-orphan adolescents who lost one or both of their parents in less than a year of time, could have began to develop secure attachment with those who were responsible for their care once the parents were dead, thus must have helped them develop positive coping behavior. Since most of the sample AIDS-orphan adolescents were living in extended families or with their siblings, they could have had a greater opportunity to find surrogate parents from relatives and older siblings, who had made themselves emotionally and socially available to them.

However, those adolescents with low resilience level who lost one or both of their parents in 1-10 years of time could be explained by lack of consistency in care and attachment after the year of parental death and may be with accumulation of
secondary stress factors that may have come after the death of their parents. As illustrated on figure two of International HIV/AIDS Alliance, through time these AIDS-orphans could have lost consistency from their current living family members’ supports in their consequent economic and/or social problems. Although further research investigations are recommended, increase in the resilience level of AIDS-orphan adolescents who lost on or both of their parents for more than ten years might have grown out to be resilient as a result of cognitive development and mounting experiences from facing compounded stressful adversities that came afterwards of losing their parents in HIV/AIDS.

When assessing the relationships between get access to basic needs supplies and the resilience status of AIDS-orphan adolescents, as this study’s findings showed since most of the respondents were living in some form of household in community settings, the effect of access to shelter and recreational facilities could not be found having effect on the resilience status of AIDS-orphan adolescents. However, access to material needs such nutrition, clothing, schooling materials, and medical facilities were found to have significant effect on the competence level of AIDS-orphan adolescents. It is imperative that access to such basic needs is vital to the
sustainability of the respondents’ lives and gives AIDS-orphan adolescents a sense that someone cares for them at least in the provision of material supports. Nevertheless, as Williamson (2002) and WHO (1999) indicated to cope with adversity it is important to have supportive environment that would take as a form of social relationship in addition to material needs that need to be made available.

In this study, it has been found that availability of secure attachment figure from other family member/caregivers positively related to the resilience status of AIDS-orphan adolescents. This study’s finding agrees with Ainsworth (1972), Herrenkohl (2000), Grotberg (1995) and Hawkins et al. (1992) who indicated the importance of security of attachment in the developmental stage of adolescents (beyond infancy and childhood), which could be demonstrated through material assistance and emotional support.

For the seven attachment questions (involving material and emotional supports) presented for AIDS-orphan adolescents, those AIDS-orphan adolescents who had secure attachment figure who could provide them with material and emotional needs showed greater resilience status than those who indicated having no one. Those AIDS-orphan adolescents living with extended families and siblings, most were able to
find easily someone from relatives and/or siblings who could constantly care, emotionally support and assist as a guiding role model for them. As indicated by Williamson (2002), WHO (1999), and Werner and Smith (1992) having someone who could provide a caring relationship would have help in fostering protective factors in AIDS-orphan adolescents by making them feel important and have a sense that others are concerned about them. As indicated in other studies, (Levine & Foster, 2000; Phiri et al., 2000; Verhoef, 2002) such caring relationship in family environment would have contributed to the resiliency of AIDS-orphan adolescents by boosting their self esteem and meaningfulness in life.

Moreover, as indicated by other studies (Beyth-Marom et al., 1989; Feider et al., 1986; Jessor, 1984; Rutter, 1987) those AIDS-orphan adolescents that indicated having at least one adult and/or older peer in the familial and social environment whom they follow as a role model had shown greater resilience for the reason of having someone as a role model would help adolescents develop strong moral values and principles to guide them through life by providing them structure and form to achieve their aspiration and dreams through realistic goal setting and appropriate social skills. This implies that those AIDS-orphan adolescents who did not have
someone who could guide and orient them with daily life realities were in great risk of leading arbitrary lives which would consequently result emotional problems adversely affecting their resiliency. As Rutter (1990) indicated individual attributes of resilience alone would merely result in competence without the guiding role of external environment. As this study’s finding further showed AIDS-orphan adolescents who were living in residential care and on their own renting a house with or without friends had indicated lower resilience than those AIDS-orphan adolescents living with relatives, siblings, and with adopting families in community settings. AIDS-orphan adolescents living in residential care, alone renting a house with or without friends, had additional risk factors such as separation from siblings, and relatives which would have helped them by providing consistent caring relationship. AIDS-orphan adolescents living in an orphanage in particular, had shown the least competence level in this study because as other studies indicated (Mulugeta & Rebecca, 2000; Tsegaye, 2001; WHO & UNICEF, 1994; WHO 1997; World Bank, 1997; WHO, 1991; UNICEF, 1997; Save the Children UK, 2002; Dunn et al., 2003) indicated they would be plagued with the isolating and artificial residential effect which would exclude them not only
from relatives and siblings but also from other community members of the society to have secure attachment figure.

This research’s finding also have found some risk and protective factors in the social environment beyond familial situation that had effect on AIDS-orphan adolescents resilience. As Compas et al. (1998) illustrated on Table one AIDS-orphan adolescents living in community which has strong community bond which had long term established emotional support and which has norms unfavorable to discrimination and crimes have shown greater resilience than those AIDS-orphan adolescents living in disorganized community where little emotional and social support and where limited opportunities for participating in community/school activities existed. According to this research findings access to community facilities such as schooling, health care and counseling services where also resilience factors for AIDS-orphan adolescents however, lack of access to such community facilities where found to be risk factors inversely affecting the resilience status of AIDS-orphan adolescents.

This study has found that AIDS-orphan adolescents’ years of living in the community has an effect on their resilience status. The finding implies that long time established emotional and
social support in the social environment outside home would work as protective factor for the resiliency status of some AIDS-orphan adolescents. As the finding on Table 7 showed those AIDS-orphan adolescents who lived for more than ten years in a community had greater resilience than those AIDS-orphan adolescents who lived for less than ten years in the current living setting. The finding however indicated that those AIDS-orphan adolescents who lived for less than a year in the current vicinity showed greater resilience than those AIDS-orphan adolescents who lived in the range of 1-10 years in the current living area. Although further research investigations are recommended, the later finding could be explained by that fact that this AIDS-orphan adolescents who lived in the current community environment, could have had an already established long-period of time of social support network from where they could have used these resources for quite sometime which had helped them to develop greater competence before they changed to the current living place.

However those who lived 1-10 years in the current living setting showed lower resilience may be due to lack of consistency in care and social support in which they might have been getting in their previous setting from peers and adults of the neighborhood. The bond with the previous
network of social support must have grown eventually to be less tight after changing living area for quite sometime. It would have been a little difficult for these AIDS-orphan adolescents to establish social support network in their current living community settings in such short range of years of time. Further they might not get a chance to develop a sense of belongingness in the community in such time may be due to lack of appropriate support from the community and thus had contributed as risk factor for their resiliency. As Sroufe (1997), Stienberg (2000), and Waysman et al. (2001) indicated the extent and nature of support resources and structures available to adolescents would either build resilience or increase vulnerability.

Moreover, the study has also seen the effect of community disorganization in the current living area of AIDS-orphan adolescents which has been found to contribute as risk factor for their resilience status. As this study’s findings has indicated those AIDS-orphan adolescents who have been living in communities with high crime prevalence rate showed lower competence levels than those living in low crime prevalence areas. This finding indicated that in such disorganized communities there might have existed the absence of multiple caregivers outside the familial setting who
could have consistently provided care and attachment security to AIDS-orphan adolescents so that they developed positive coping behavior. AIDS-orphan adolescents who have been living in disorganized community settings with high crime prevalence most probably would have resorted to maladaptive behavior such as substance use, withdrawal, and/or engaging in criminal activities themselves. In such communities it might have been less likely that AIDS-orphan adolescents would be able to find adequate and competent adults/peers who could assist them as role models/mentors and who could mold them to have positive attitudes, strong moral values and positive adaptive mechanisms which might have inversely contributed to their resilience status as a risk factor.

On the other hand, AIDS-orphan adolescents who have been living in social environment with strong community bond might have developed competence in the face of adversity through access to facilities and opportunities for participating in meaningful school/community activities without discrimination. As resilience theorists (Crikszentmihalyi & Schneider, 2000; Werner, 1984; Gormley, 2000; Smith & Carlson, 1997; Aldwin, 1994) indicated community and school members who have assigned tasks to adolescents with achievable but yet higher level activities have contributed in
fostering resiliency in such adolescent groups. This study’s findings also have confirmed with this resilience theory approach that AIDS-orphan adolescents who had access to schooling, health care, counseling and a chance for meaningful participation in the community and after school programs have shown greater competence level than those who have limited access to such facilities.

This could be explained by resilience theory approach in that, individuals who had access to such facilities also might have a wider opportunity to find attachment figures in the social environment who could guide and care for them by providing positive and high expectation to achieve their goals in life. Doctors, counselors, teachers, school staffs, and peers in these settings would provide them protective factors for resiliency by conveying to them an attitude of compassion, understanding and respect in consistent manner. This would give AIDS-orphan adolescents a sense that someone is caring for them and develop sense of purpose in live which would act as protective factor for their resilience status.

In addition this research finding has shown that AIDS-orphan adolescents who were involved in school/community volunteer clubs or association activities had developed greater resilience status-except for AIDS-orphan adolescents who had
an opportunity to participate in youth, sports and mini-media activities in the community/school. Most AIDS-orphan adolescents who had participated in community/school activities in a form of anti-AIDS clubs, religious associations, students clubs, music and drama clubs had shown greater resilience than those AIDS-orphan adolescents who did not participate in any of such activities. As Masten and Coasterworth (1998) indicated participating in such community/school activities could have helped in fostering resiliency in AIDS-orphan adolescents by providing them a sense of purpose and future orientation, combined with a sense of usefulness. Although further research investigations are required the insignificant effect of AIDS-orphan adolescents' participation in youth, sports and media club activities could be explained by some problems associated with consistency in the provision of such opportunities from the community side or in relation to the interests and preferences of individuals to such activities in adolescence developmental stages.

As indicated by Bierman and Montminy (1993) individual interest, age level and gender specific approaches should be taken into consideration when community/schools give a chance for participating in volunteer activities to benefit vulnerable individuals' competence levels. This could also be
a reason why AIDS-orphan adolescents of the study who were engaged in gainful employment activities, did not show greater resilience than those who have not participated likewise. Engagement in employment activities have not contributed to AIDS-orphan adolescents’ competence level due to the fact that most of the AIDS-orphan adolescents have been participating in less-paying and less skill requiring jobs. As World Bank (1997), Tolfree (1995), Lourens (2003), and Foster and Jiwli (2001) indicated because most of the AIDS-orphan adolescents who were engaged in income generating activities might have to interrupt schooling which made it less likely that they found interesting and gainful kinds of jobs which usually required learning institutions’ qualification certificates.

In fact according to Foster and Williamson (2000) these AIDS-orphan adolescents are at risk of labor and sexual exploitation which would adversely affect their resilience statuses. Furthermore, as some reports (UNAIDS, 2001; USAID & Children on Brink, 2002) indicated female AIDS-orphan adolescents who have indicated for working in Bars and night clubs are in greater vulnerable to HIV infection which also puts their lives in danger besides their compounded stressful situations resulting as a consequence of losing both
parents to HIV/AIDS. Thus this implies that it is not the opportunity for participating in income generating activities but the meaningfulness and gainfulness of the employment activities which would promote resiliency in AIDS-orphan adolescents.
CHAPTER FIVE

5. Conclusions and Recommendations

5.1. Conclusions

After measuring the resilience status and evaluating some of the major resilience factors, this study concludes that most of the risk and protective factors indicated in resilience theory are applicable to the development of resilient behaviors in AIDS-orphan adolescents of Addis Ababa. From the findings the following conclusions have been drawn:

- CD-RISC measurement has shown that AIDS-orphan adolescents have varying degrees of resilience in spite of sharing multiple stressful situations in their lives as a result of losing both of their parents to AIDS. More than half of the AIDS-orphan adolescents were found to have at least average resilience status which indicates their better coping and functioning status in the social environment. Further the study concludes that about one-third of the AIDS-orphan adolescents who had below average resilience scores were at great risk of developing serious psychiatric disorders as compared to the others respondents.
• This study’s findings indicated that gender status has an effect on the resilience status of AIDS-orphan adolescents. Nonetheless, female AIDS-orphan adolescents were found to be more resilient than their male counterparts, unlike many resilient researches which have indicated vise versa. This study’s finding thus indicated that male AIDS-orphan adolescents are at greater risk of developing post-traumatic stressful problems than female AIDS-orphan adolescents living in Addis Ababa.

• This study however did not find any significant effect of age on the resilience status of AIDS-orphan adolescents found in early, middle and late adolescent periods. The study agrees with recent researches which disregarded the generic effect reported by earlier researches for bringing additional stress factor in AIDS-orphans of both sexes at early adolescence period. However, further research is recommended on why Female AIDS-orphan adolescents at middle adolescents stage showed lower resilience status than Females found in early and late adolescence periods.

• Academic performance as indicative of the intelligence level had on the other hand an effect on the resilience
status of AIDS-orphan adolescents. This study indicated that having at least average intelligence level has acted as protective factor for AIDS-orphan adolescents in their multiple adversities, whereas below average performance was found to contribute as risk factor for AIDS-orphan adolescents toting up their compounded adversities in the form of school problems (such as scholastic demoralization and school failure).

- On the other hand, current states of emotions were not found to have effects on the resilience status of AIDS-orphan adolescence. Although individual variations were evidenced in degree of resilience, emotional difficulties seemed to be shared by AIDS-orphan adolescents. Similar to the third model resilient AIDS-orphan adolescents might have retained the baggage of sadness and unhappiness but had the capacity to cope with their emotional burdens.

- Conversely, some coping mechanisms that AIDS-orphan adolescents use in their multiple stressful situations were found to have an effect on their resilience status. From the studies findings it is safe to conclude that coping mechanisms such as looking for
advice from others and using prayers have helped AIDS-orphan adolescents to be more resilient than AIDS-orphan adolescents who used substances, aggressive behaviors, withdrawal from others/activities, avoidance of thought and crying as coping mechanisms. In fact as the research’s findings showed the later types of coping mechanisms have acted as risk factors by employing poor management of stressful situations instead of dealing with the problems directly, and thus reduced these AIDS-orphan adolescents capacity to function in a meaningful and adaptive manner which may result in serious psychiatric disorders in the long run.

- As the study assessed the individual characteristics factors, it has also tried to see the effect of familial circumstances on the competence level of AIDS-orphan adolescents. The study could not find the effect of proximity of parents’ death on the resilience status of AIDS-orphan adolescents. This finding differs from other research findings which indicated that in the first two years of experiencing multiple deaths of parents AIDS orphans would more likely be in great risk of developing serious emotional health problems, if
immediate emotional supports are not provided for them. Thus it is safe to conclude that AIDS-orphan adolescents who lost one or both of their parents in less than two years of time, could have began to develop secure attachment with those who were responsible for their care once the parents were dead, thus must have helped them develop positive coping behavior. Since most of the sample AIDS-orphan adolescents were living in extended families or with their siblings, they could have had a greater opportunity to find surrogate parents from relatives and older siblings, who had made themselves emotionally and socially available to them.

- Nevertheless, access basic needs supplies were found to have effects on the resilience status of AIDS-orphan adolescents, except for shelter and recreational facilities. Although further studies were recommended, as this study’s findings showed since most of the respondents were living in some form of household in community settings and were attending school, access to shelter and recreational facilities could not be found to have an effect on the resilience status of AIDS-orphan adolescents. However, access to material needs
such nutrition, clothing, schooling materials, and medical facilities were found to be protective factors for AIDS-orphan adolescents to develop better competency than those who lack access to such basic needs. Those AIDS-orphan adolescents who have access to such basic needs provision has helped them in sustaining their lives and has given them a sense that someone cares for them at least in the provision of material supports.

- In this study, it was found that availability of secure attachment figure in the social environment having an effect on the resilience status of AIDS-orphan adolescents. From the findings it is safe to conclude that availability security of attachment figures in the developmental stage of adolescents works as protective factor for their resiliency demonstrated through material assistance, emotional support, guidance and/or role-modeling/mentoring. However lack of attachment figure in each of these outlines was found to act as risk factor for AIDS-orphan adolescents' competence level.

- On top, living arrangement of AIDS-orphan adolescents was found to have an effect on their
resilience status. As the finding indicated living with
the extended families, siblings, and in community
settings acted as protective factors whereas living in
orphanages and renting house with friends as risk
factors for the resiliency of AIDS-orphan adolescents.
AIDS-orphan adolescents living in orphanages and
renting a house with other people had additional risk
factors such as separation from siblings, and relatives
thus lack provision of consistent caring relationship
during their adversities in familiar ways.

- Furthermore, the study investigated the effect of the
external environment outside familial settings on the
resilience status of AIDS-orphan adolescents. As the
finding shows Years of living in the current
community was found to have significant effect on the
resilience status of AIDS-orphan adolescents. The
finding implies that long time established social
support network in the environment outside home
would work as protective factor for the resiliency of
some AIDS-orphan adolescents.

- However, the community's social norms and bonds
should be taken in to consideration. As the finding of
this study indicated community disorganization had
adverse effect on the resilience status of AIDS-orphan adolescents. The study showed that AIDS-orphan adolescents who were living in disorganized community were norms were favorable to substance uses, crimes, discriminations and abuses were at risk of developing adjustment problems in their changing roles after their parents’ death. AIDS-orphan adolescents living in disorganized community where little emotional and social support and where limited opportunities for participating in community/school activities existed not only lack such atmosphere but also will be at risk of being drawn to delinquent activities, due to lack of a mentor who could guide them develop coping behaviors that have positive outcomes.

- The study also has identified the effect of current education status on the resilience status of AIDS-orphan adolescents. As the finding showed attending school has acted as protective factors for the development of better resilience status. However, not attending school, dropping-out and not furthering education were found to be risk factors resulting in lower resilience level. Unlike those who were not
attending education, AIDS-orphan adolescents who were attending school had an extended social support environment in the educational institutions (school staffs and peers) that might have helped them to succeed despite their adversities. School staffs and peers not only would provide them a caring relationship but also positive and high expectations which would have helped AIDS-orphan adolescents develop sense of purpose and meaningfulness in life.

- Moreover, participation in school and/or community activities was found to have an effect on the resilience status of AIDS-orphan adolescents. As the finding indicated participation in school/community activities has helped AIDS-orphan adolescents as protective factor except for those who participated in sport clubs, youth clubs, and mini-media clubs. As indicated in resilience theory, participation in school/community activities in addition to providing wider social supporting network, might have created an opportunity for meaningful participation consequently boosted AIDS-orphan adolescents' confidence and self-esteem.

- However, participation in income generating activities did not have an effect on the resilience status of AIDS-
orphan adolescents. As it can be drawn from the study’s finding since most of the AIDS-orphan adolescents were engaged in less paying and less demanding jobs, employment did not contribute to their resilience status. In fact most of the AIDS-orphan adolescents who were engaged in income generating activities might have interrupted schooling which had acted as risk factor to be employed in interesting and gainful kinds of jobs which usually required learning institutions’ qualification certificates. Furthermore, some of the AIDS-orphan adolescents engaged in work activities were are at risk of labor and sexual exploitation which would adversely affect their resilience statuses. Thus this implies that it is not the opportunity for participating in income generating activities but the meaningfulness and gainfulness of the employment activities which would promote resiliency in AIDS-orphan adolescents.

5.2. Recommendations

Based on this study’s findings, it is safe to generalize that in addition to personal attributes such as gender, cognitive and coping skills, familial and social environments characteristics
add up to the development of resilience personality in AIDS-orphan adolescents through provisions of caring relationship, positive and high expectation, and an opportunity for meaningful participation in constant manner so that their internal resilient capacities are enhanced. Supporting families, peers, neighborhood adults, schools, religious organizations, government bodies, welfare organizations and other concerned bodies in the social environment can play a vital role in fostering resilience in AIDS-orphan adolescents in one or more of the following ways at short term and long term basis:

5.2.1. Short Term Recommendations

1. During the last terminal periods of parents, relative and neighbors and other concerned bodies in the community should plan for the future of AIDS-orphan adolescents and their siblings. This includes all approaches that decrease all the risk factors that would impede adolescents’ resilience capacity such as living arrangements, properties, and making appropriate legal and financial arrangements. Although avoiding all risk factors involving in the lives of AIDS-orphan adolescents is often unpractical and unimportant in promotion of resiliency, relative and neighbors and other concerned
bodies in the community should be involved from the very beginning to minimize the effects of adversities.

2. After parental deaths, adults from relatives and neighbors and other concerned bodies in the community need to provide a consistent caring relationship to AIDS-orphan adolescents, by acknowledging their changing roles and the responsibilities they have taken on. Caring for AIDS-orphan adolescents and involving them in decisions about their lives will help to build their self-esteem and confidence. Giving AIDS-orphan adolescents the opportunity to participate in decision-making also helps them to learn about co-operation, mutual understanding and social responsibility, and to develop communication and negotiation skills which are all components of resilience personality.

3. As indicated AIDS-orphan adolescents develop better resiliency in a family environment and familiar surroundings. As far as possible, AIDS-orphan adolescents should be kept together with their siblings and in their own community, where they can relate to adults and peers who share a similar background, culture and traditions. AIDS-orphan adolescents and their siblings should not be moved to another area unless it is unsafe for physical and psychosocial development.
Relatives, neighbors and other concerned bodies in the community should give special attention to AIDS-orphan adolescents living in disorganized community setting where high crime and substance use prevalence exist. At least one competent member of the extended families or neighbor should be made available for AIDS-orphan adolescents living in such community environment if moving them to another area puts them at greater risk.

4. As indicated by previous researches and confirmed by this study’s findings institutional care was the least appropriate living arrangement to foster resiliency in AIDS-orphan adolescents, and can lead them at risk of long-term psychosocial problems. Welfare organizations and other concerned bodies should consider institutional care as a last resort when there are no alternatives, or as a temporary measure until fostering, adoption or other arrangements are made, or attempts are made to locate relatives for their support.

5. In schools special attention should be given to AIDS-orphan adolescents. Counseling services should be available to AIDS-orphan adolescents in schools. Further schools should have accessible student friendly resource center, forums and clubs so that AIDS-orphan adolescents can share information and
activities with other students and good caring interactive relationship developed. Schools should strengthen the ability of teachers, schools staffs, peer-students in terms of skills and resources in how to support and promote resiliency in AIDS-orphan adolescents. Furthermore, special after school support programs should be designed for AIDS-orphan adolescents, who have below average academic performance and who have risk factors such as scholastic demoralization and failure problems. AIDS-orphan adolescents should have affirmative action approaches with positive but yet attainable academic expectations specific to each adolescent's academic performance level.

6. AIDS-orphan adolescents should get part in different community and school facilities. Using the existing community structures AIDS-orphan adolescents should have the opportunities to participate in recreational and meaningful task activities so that they could develop a sense of purpose and belongingness in the community. Neighbors and other concerned bodies in the community should create opportunities for AIDS-orphan adolescents to participate in gainful employment opportunities specific to their interests and preferences with positive and high expectation demands so that they could develop internal locus of control.
7. The support of the social environment is very important to foster resilience in orphans found in the adolescence developmental period. However, the support should be appropriate to the needs of each adolescent across gender, education status, academic performance, living arrangement and basic needs supplies. It is important to remember that each individual AIDS-orphan adolescent responds differently to adverse situations and has his or her own psychosocial needs.

8. Furthermore, community, government, and non-government welfare programs concerned in caring for AIDS-orphans of Addis Ababa should investigate the relevance and effectiveness of such programs in fostering resilience specific to the needs and preferences of AIDS-orphans in the developmental stages of adolescence. Greater efforts are needed to assess the best ways of identifying and targeting AIDS-orphan adolescents or households with compounded risk factors so that support is provided to them in advance accordingly.

9. Community, welfare and government body Programs or activities concerned with AIDS-orphan adolescents should also focus on mobilizing and train religious leaders by encouraging them to support orphans and vulnerable adolescents. Each faith AIDS-orphan adolescents should have
a teaching program specific to AIDS-orphan adolescents’ psychosocial needs that would encourage their resiliency and the development of positive coping behavior.

10. Community, welfare and government body Programs or activities should also focus on providing opportunities for peer support. Giving AIDS-orphan adolescents an opportunity to talk about their feelings and experiences with other adolescents in a similar situation would help them realize that they are not alone and learn positive coping behaviors from each other. Organize structured activities (games, cultural activities, sports, and clubs) for groups of AIDS-orphan adolescents, and include orphans who have become socially isolated.

5.2.2. Long Term Recommendations

1. AIDS-orphan adolescents supporting relatives, neighbors, welfare organization and other concerned bodies in the community should take into account all the needs of the adolescents in a holistic manner and avoid specialization in service provision. Psychosocial support must be backed by practical supports to address AIDS-orphan adolescents’ immediate needs for food, clothing, medical care, counseling
services, and education. An integrated and holistic approach encourages, communities, schools, and government and non-government welfare programs to complement each other so that resiliency is promoted in AIDS-orphan adolescents. Efforts should be made to build partnerships with other care giving programs to ensure good use of resources and comprehensive delivery of care and services.

2. Finally, researches should be conducted to assess best ways of promoting resiliency in AIDS-orphan adolescents with considerations given to individual and social environments’ attributes so that resiliency is promoted to the large proportion of AIDS-orphans of Ethiopia. Studies should focus on AIDS-orphans living on the streets, so that resilience promotion approaches are identified for this greater proportion and are used accordingly.
REFERENCES


Portland, Oregon: Western Center Drug-Free Schools and Communities.


Challenge of Reducing Alcohol, Tobacco, and Other Drug Use among Youth. *Journal of School Health*, 68(3), 87-93.


Cicchetti, D., & Nurcombe, B. (1997). The role of self organization in the promotion of resilience in
maltreated children, Development and Psychopathology, 9, 797–815.


"http://extension.umn.edu/distribution/familydevelopment/"

http://extension.umn.edu/distribution/familydevelopment/components/7565_06.html.


Tedla Diressie, & Meseret Tadesse. (2002). *An Assessment on the Situation of Ex-Institutionalized Children of Four*
Orphanages in Ethiopia. Addis Ababa, Ethiopia:
Network for Orphans and Vulnerable Children,
Jerusalem Association Children’s Homes, and Pact-Ethiopia.

Children in the Developing World. Hampshire, United
Kingdom: Arena Ashgate Publishing for Save the Children.

Protection and Participation in Emergencies.
Stockholm: Save the Children (Sweden).

Tsegaye Chernet, (2001, March). Overview of Services for
Orphans and Vulnerable Children in Ethiopia.
Prepared for a workshop held March 27–29, 2001, in
Kigali, hosted by the Ministry of Local Government
and Social Affairs of the Republic of Rwanda.

Tsuang M. T. (2000). Genes, environment and mental health
wellness. American Journal of Psychiatry, 157, 489–
491.

UNAIDS. (2000a) Caring for Care-givers: Managing Stress in
Those Who Care for People with HIV and AIDS,
UNAIDS Best Practice Collection.


UNAIDS. (2001b, May). Fact Sheet: Children and young people in a world of AIDS.


positive and negative long-term changes following trauma. *Journal of Traumatic Stress, 14*, 531–548.


RESILIENCE QUESTIONNAIRE AND INVENTORY

The following questions and statements are presented to assess HIV/AIDS orphan adolescents' stress coping ability found in the age range of 13 -18 years and who have lost both of their parents due to the HIV/AIDS disease. The questionnaire assesses the social environments of AIDS orphan adolescents to see the risk factors and protective factors associated with their adaptability. The questionnaire is prepared by a graduate student in the department of Developmental Psychology to indicate the competence level risk and protective factors of AIDS orphan adolescents to concerned bodies and also as partial fulfillment of a Master’s thesis work.

Read the following questions thoroughly and please indicate your honest responses to the questions and statements. They are purely for research purposes, and your responses will be kept confidential. You do not need to write your name on the questionnaire.

GENERAL INSTRUCTION
Please indicate your answer for the following questions by marking (✓) in the boxes of the questions’ alternatives or if your answer is not found within the alternatives writing the appropriate response in the space provided.

1. Gender:
   - Male
   - Female

2. Age:
   - 13-14 years
   - 15-16 years
   - 17-18 years

3. Level of education/ grade:
   - 0-8 grade
   - 9-10 grade
   - 10+ grades
   - University/college
   - Others, Please specify

Date __________________

APPENDIX A
4. Current education status:
   - Attending regular school (1-10 grade) □
   - Dropout from school □
   - Attending 10+ technical school □
   - High School Complete □
   - Never attended school □
   - Attending higher education □
   Other specify ___________________________________________________________

5. If you are attending education, how do you rate your current academic performance in school?
   - Good □
   - Average □
   - Poor □

6. Living situation/ arrangement
   - Living alone □
   - Living with siblings of the family □
   - Living with extended families □
     - Living in an orphanage □
     - Living in Adopting family □

7. Please mark (✓) for the items that you currently have regular access to;
   - Food □
   - Clothing/Uniform □
   - Shelter □
   - Medical care facilities □
   - Counseling services □
   - Schooling □
   - Play/recreation □
For the questions presented on the left who do you think often come for support? From the listed type of personality mark (✓) for the person/s who mostly assists for the needs stated on the right below.

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<tbody>
<tr>
<td>18 Who do you want to talk to or be with when you are feeling 'down'?</td>
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<td>19 Who is the first person you'd tell if you were worried about something?</td>
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<td>20 Who do you think cares for your wellbeing?</td>
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<td>21 Who tries to fulfill your needs (food, cloth, shelter, school, medication)?</td>
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<td>22 Who often guides you in your day-to-day activities?</td>
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<td>23 Who makes most decisions concerning your life?</td>
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<td>24 Who is your role model for life?</td>
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8. For how many years, have you lived in your current living area?
   - Below 1 years ☐
   - 1-5 years ☐
   - 6-10 years ☐
   - 11-15 years ☐
   - 15 years above ☐

9. Are there many crimes (such as theft, group violence, substance use, sexual abuse) committed? ________________________________

10. Years since your mother’s death
    - Below 1 years ☐
    - 1-5 years ☐
    - 6-10 years ☐
    - 11-15 years ☐
    - 15 years above ☐

11. Years since your father’s death
    - Below 1 years ☐
    - 1-5 years ☐
    - 6-10 years ☐
    - 11-15 years ☐
    - 15 years above ☐

12. Please mark (✓) from the listed emotional states, if you have often felt in the last one-month?
    - Depression
    - disorientation
    - Guilt
    - Sadness
    - Loneliness
    - Low self esteem
    - hopelessness
    - anxiety
    - lack of confidence
    If others ________________________________
13. What mechanisms do you use to cope up with the emotionally stressful situations? From the listed

- Pray
- Talk to someone
- Drink alcohol
- Chew chat
- Withdraw from activities

Others, please specify ___________________________

14. Have you ever participated in any school/community associations/clubs?

15. Please mark(✓) to the listed activities that you actively participate in:

- Anti-AIDS club
- Sport club
- Youth club
- Mini-media club

Others please specify __________________________

16. Are you currently engaged in gainful work activities? __________

17. If your answer for question number 16 is “yes”, please indicate the type of work that you are engaged?
CONNOR-DAVIDSON RESILIENCE SCALE (CD-RISC)

Following statements about personality trait are presented. Please choose among the four presented alternatives that expresses your internal feelings to the statements over the past month.

0= not true at all
1= rarely true
2= sometimes true
3= true nearly all the time
4= applies somewhat

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<tr>
<th>No</th>
<th>Statements</th>
<th>0</th>
<th>1</th>
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<tr>
<td>1</td>
<td>Able to adapt to change</td>
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<td>2</td>
<td>Close and secure relationships</td>
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<td>3</td>
<td>Sometimes fate or God can help</td>
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<td>4</td>
<td>Can deal with whatever comes</td>
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<td>5</td>
<td>Past success gives confidence for new challenge</td>
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<td>6</td>
<td>See the humorous side of things</td>
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<td>7</td>
<td>Coping with stress strengthens</td>
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<td>8</td>
<td>Tend to bounce back after illness and hardship</td>
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<td>9</td>
<td>Things happen for a reason</td>
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<td>10</td>
<td>Best effort no matter what</td>
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<td>11</td>
<td>I can achieve my goals</td>
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<td>12</td>
<td>When things look hopeless, I do not give up</td>
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<td>13</td>
<td>Know where to turn for help</td>
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<td>14</td>
<td>Under pressure focus and think clearly</td>
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<td>15</td>
<td>Prefer to take the lead in problem solving</td>
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<td>16</td>
<td>Not easily discouraged by failure</td>
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<td>17</td>
<td>Think of self as a strong person</td>
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<td>18</td>
<td>Make unpopular or difficult decisions</td>
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<td>19</td>
<td>Can handle unpleasant feelings</td>
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<td>20</td>
<td>Have to act on a hunch</td>
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<td>21</td>
<td>Strong sense of purpose</td>
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<td>22</td>
<td>In control of my life</td>
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<td>23</td>
<td>I like challenges</td>
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<td>24</td>
<td>I work to attain my goals</td>
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<td>25</td>
<td>Pride in my achievements</td>
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THANK YOU FOR YOUR HONEST RESPONSES!
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9 - 10 ከወወ\n
10 + ከወወ

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4. ከሆነት ከነ ያጠ缅ሮ/ሆሸ የታጠ缅ር ዋጋ/ሔጆ

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5. ከተጠ缅ር/ሆሸ ከሆነ ከሆን ላይ ያጠ缅ሮ/ሆሸ የታጠ缅ር ዋጋ/ሔጆ ለበር መስፈር መስፋ ከወ ከተጠ缅ር ከፋስፋወ

ስራ ከወ\ □

መጋኞች ከወ\ □

አሶ እና ያገኙ

6. ከሆነት ያጠ缅ሮ/ሆሸ ዋጋ/ሔጆ

አሶ ከወ የተጠ缅ር\ □

ሆሸ/ሆሸ ከፋስፋወ ከወ የተጠ缅ር\ □

ወሸ/ሆሸ ከፋስፋወ ከወ የተጠ缅ር\ □

አሶ ከወ የተጠ缅ር\ □

አሶ እና ያገኙ

7. ከተጠ缅ር ዋጋ/ሔጆ ከሆነ ከሆን ያጠ缅ሮ/ሆሸ ዋጋ/ሔጆ ከፋስፋወ የስፋ እና የውጠ

ተጠ缅ር ዋጋ/ሔጆ ላይ ከፋስፋወ ከፋስፋወ ከፋስፋወ ከፋስፋወ ከፋስፋወ

አሶ እና ያገኙ

አሶ እና ያገኙ

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| 10. | የሚያወግ የወጣው የአማራ ይህ ያስተካክ ገብ የካት ግል ሐማማው። ይህ እንደ የሚታወቀው ያለው ነው። የአማራ የሆነ ይገባል። ይህ እንደ የሚታወቀwald

| 11. | ከእስከ ከወን የሚስከር ይህ ያስተካክ ገብ የካት ግል ሐማማው። ይህ እንደ የሚታወቀው ያለwald

| 12. | የሚያወግ የወጣው የአማራ ይህ ያስተካክ ገብ የካት ግል ሐማማው። ይህ እንደ የሚታወቀwald

20. እርምሣዊ ይስልሆ ከወጣወ የሚታየ የሚለው ከመወጣሮ እንደ ከወጣወ የሚለው እንደ ከመወጣሮ

21. እርምሣዊ ይስልሆ ከወጣወ የሚለው እንደ ከመወጣሮ እንደ ከመወጣሮ

22. እርምሣዊ ይስልሆ ከወጣወ የሚለው እንደ ከመወጣሮ እንደ ከመወጣሮ

23. እርምሣዊ ይስልሆ ከወጣወ የሚለው እንደ ከመወጣሮ እንደ ከመወጣሮ

24. እርምሣዊ ይስልሆ ከወጣወ የሚለው እንደ ከመወጣሮ እንደ ከመወጣሮ

25. እርምሣዊ ይስልሆ ከወጣወ የሚለው እንደ ከመወጣሮ እንደ ከመወጣሮ

አመልካታት
Declaration

I, the undersigned declare that this thesis is my original work done under the guidance of professor Venkat and that all relevant sources of materials used for the thesis have been duly acknowledged.

Name: Bisrate Markos Wolde Eyesus

Signature: 

Place: Addis Ababa

Date of Submission: June 11, 2005

This is to certify that this is a bonafide work done under my guidance and is fit enough to be submitted.

Name: R.VENKATAPRACHALAM

Signature: R.Veniapchala

Date: June 11, 2005