

**LOSS OF PARENTS, ACADEMIC PERFORMANCE, AND  
PSYCHOSOCIAL ADJUSTMENT OF GRADE FIVE CHILDREN  
IN ZAMBIA: A QUASI-EXPERIMENTAL STUDY**

BY

THESIS  
PH.D.  
KAS  
2007  
C.1

**SOPHIE KASONDE-NG'ANDU**

Thesis submitted to the University of Zambia in fulfilment of the  
requirements for the degree of Doctor of Philosophy in Educational

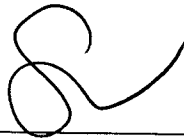
Psychology

**March 2007**



## DECLARATION

I hereby solemnly declare that this thesis represents my own work and that it has not previously been submitted for a degree at this or any other University.



---

Sophie Kasonde-Ng'andu  
(candidate)

**© 2007 by Sophie Kasonde-Ng'andu. All rights reserved**

Loss of Parents, Academic Performance and Psychosocial Adjustment of Grade Five Children in Zambia: A Quasi Experimental Study

### Certificate of approval

This thesis, of Sophie Kasonde-Ng'andu, is approved in fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Educational Psychology by the University of Zambia.

Signed \_\_\_\_\_

Date 27/06/07

Signed \_\_\_\_\_

Date 27/06/07

Signed \_\_\_\_\_

Date \_\_\_\_\_

## **ABSTRACT**

### **Loss of Parents, Academic Performance and Psychosocial Adjustment of Grade Five Children in Zambia: A Quasi Experimental Study**

This was a comparative study based on 400 grade 5 children who had lost one or both parents against their 400 peers in the same grade with both parents alive. Data collection involved the children completing various tests for academic performance, the Child Behaviour Checklist (CBCL), and the Dissociative Experiences Scale (DES-II with the assistance of the research team. Also, their teacher(s) and parents/caregivers completed the checklists on each child. In other words, the data on behaviour problems involved three informants.

Leading hypotheses of this study were that because loss of one or both parents is a painfully devastating experience, especially when it happens at a tender age as was the case for the children in this study, the children with one or both parents dead are likely to:

1. exhibit more behaviour problems than their peers with both parents alive as measured by the Child Behaviour Checklist (CBCL), which assesses social competence and behavioural problems.
2. score higher on dissociation than their peers with both parents alive as measured by the Dissociative Experiences Scale (DES-II), DES-11 assesses the nature and level of disruption in memory or consciousness as a consequence of traumatic experiences such as loss of a beloved one.
3. score lower on the selected school performance tests (in this case Grade 5 competence tests in math and English) than their peers with both parents alive.
4. display associations between behaviour problems, dissociation and school performance as these areas of functioning are supposed to reinforce one another.

The conclusions were that:

Gender differences in the development of problem behaviour were noted. Teachers reported significant gender differences in all types of problem behaviour. Contrary to expectation, teachers indicated more internalizing and externalizing, and total problems in girls than boys. However, available literature tends to associate more internalizing problems with girls than boys, and vice versa, i.e., externalizing problems are more common in boys than

girls. Teachers also reported more behaviour problems in older pupils and in pupils who had scored lower on teacher ratings of pupils' general intelligence test. Comparisons of urban against rural reports from the three categories of informants on behaviour problems revealed that teachers of the rural pupils report fewer problems than their counterparts in the urban sample. On the other hand, caregivers and children from rural areas bring out conflicting reports, depicting more behaviour problems than the urban sample. These differences between rural and urban dichotomy are quite substantial.

The findings on dissociation in this sample were unexpected, in particular the absence of an association between parental loss and dissociation. The DES however seemed valid for use in a Zambian sample of fifth grade pupils as there was no correlation between the DES and age of the children, and none with pupils' language competence. However, the DES scores were significantly associated with the teacher ratings of pupils' general intelligence test, although with a weak effect size. The DES was also not related to gender or to rural-urban residence of pupils. However, the hypothesis of a significant higher dissociation score for those pupils who had experienced one or more parental losses had to be refuted. Loss of parents in Zambian pupils does not seem to lead to higher levels of dissociation as one would expect on the basis of trauma studies in Western societies, in children and adults alike. Compensatory academic support is suggested as essential because even in the absence of evidence of serious psychosocial problems parental loss during the primary school years often gives rise to disruptions of the child's schooling due to loss of income and or relocation of children to different domiciles. Results from the analysis of variance to test whether children with or without parental loss differed on the DES surprisingly revealed no significant differences.

As expected significant differences were found in performance on maths and teacher ratings of pupils' general intelligence tests with pupils with both parents alive outperforming the others in the parental loss group regardless of the rural-urban dimension of the schools. Thus, parental loss appears to affect the pupils' academic performance in a negative way. As for gender, it did not have a significant effect on performance in language, maths and teacher ratings of pupils' general intelligence. However, a significant correlation was found between language and math scores and higher scores on maths went with higher teacher ratings of pupils' general intelligence. Age did not significantly correlate with any of the school performance tests. Comparisons between urban and rural pupils on all the school performance tests revealed significant differences in performance, with urban pupils outperforming their rural counterparts regardless of whether they were orphan or non-orphan. A similar trend was noted even when age was controlled for.

With the exception of the earlier discussed association between lower teacher ratings of pupils' general intelligence and higher prevalence of behaviour problems as perceived by the teachers, no association was found between dissociation, behaviour problems and school performance. Similarly, there were no large differences in correlations between these main variables and gender. In other words, the correlational structure between problem behaviours, dissociation and school performance were more or less the same for both girls and boys. Urban and rural comparisons also revealed no specific associations between behaviour problems, dissociation and school performance. The same applied when child loss status was taken into account, indicating no substantial difference in correlations between behaviour problems, dissociation and school performance in pupils who lost one or both parents and those with both parents alive.

It is important to mention that the measurement artefacts may have been responsible for some of the unexpected and/or theoretically challenging findings of the study. Indeed, the very complex pattern of the data obtained with the CBCL strongly suggests that the instrument was not completely valid and reliable in the context of this study. In the Zambian cultural context loss of one or both parents may not necessarily lead to serious psychological disturbance because of the presence of multiple attachment caregivers in the early years of a child. In other words in the face of death of one or both parents, there is still stable relationships in the child's emotional life to cushion the impact of loss.

This study had its own limitations. Notable among these were failure of this study to capture reliable data concerning (i) the socio-economic status of the children's families or (ii) the specific alternative caregiving arrangements following the death of their parents tends to weaken the database available for understanding variations in response to various instruments used (iii) the research instruments, especially the CBCL were not translated into local languages in order to ensure that participants really understand issues at hand.

Based on the findings of the study the following is recommended:

1. institute compensatory academic support to orphaned children in their early years of schooling even in the absence of evidence of psychosocial problems.
2. strengthen the efforts in providing positive support to orphans, especially in the area of psychosocial and educational counseling.
3. put in place ongoing short courses through workshops for teachers.
4. MoE should embark on improving on-going educational campaigns on the psychosocial and academic needs of orphans targeted at parents/caregivers.

## **DEDICATION**

To my unreplaceable long life friend, late Dr. Irene Maimbolwa-Sinyangwe, who was my inspiration and my motivation. I loved my days with you. The extreme grief of loss that I experienced when you tragically disappeared, gradually opened my heart and channeled my interest to the study of the psychosocial problems that beset orphaned children. I gave up feeling sorry for myself and learned to "thank God" for your precious life with me. "We must measure the value of our lives not by life's length, but by its depth" (Fisher, 1994).

## **ACKNOWLEDGEMENTS**

I am greatly indebted to Dr. Darlington Mwamba Kalabula, my principal supervisor and to Professor Marinus H. Van IJzendoorn, my external supervisor for their encouragement and guidance. Their support will always be treasured.

Special thanks go to the Lolle Nauta Foundation, Netherlands, for funding the research for this study and for facilitating the visits to Leiden University to enable me benefit from contacts with my external supervisor. I also thank the University of Zambia for granting me study leave.

This study would not have been possible without the cooperation of the children, their caregivers and the teachers. , I am grateful to Dr. Marian Bakermans-Kranenburg (Leiden University) for her support with data-analysis. My thanks also extend to Jonathan Chibaula for assisting with the data collection, coding and entry. This study was special to him because he is one of the few who really understood what the loss of a dear friend, Dr. Irene Maimbolwa-Sinyangwe meant to me because I have worked with him for many years.

Several professional friends gave me emotional support throughout this study. Some of these are: Professor Robert Serpell, former Vice Chancellor, University of Zambia, who had earlier taught me during my undergraduate studies with my dear friend late Dr. Irene Maimbolwa-Sinyangwe, Prof. Richard Siaciwena, Director, Directorate of Distance Education, late Prof. Martin Kamwengo, Dr. Peter Chomba Manchishi, the Assistant to the Dean, Post Graduate, the former Dean of Education, Mr. Henry Msango, the current Dean, Education, Mr. Wanga Chakanyika, Dr. Efron Chakupa Lungu and Mr. Geoffrey Tambulukani.

Lastly, but by no means not the least, my sincere gratitude go to my family, the three “special men” in my life: my husband, Fred and our two sons, Lombe and Mwansa. It is my hope that my sons will take the degree at my age, as a source of encouragement in their academic challenges. “Where there is a will, there is a way”. I love you guys and appreciate your loyalty and patience. It is not easy to put up with an ambitious, professional wife and mother. May the good Lord bless and provide for your psychosocial needs abundantly.

## Table of Contents

Declaration	
Copyright	
Certificate of Approval	
Abstract.....	i
Dedication.....	iv
Acknowledgements.....	v
Table of Contents.....	vii
List of Tables.....	xii
Acronyms.....	xiv
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background.....	1
1.1.1 The Social Issue of Parent Loss in Zambia.....	2
1.1.1.1 Cultural Conception of Loss and Orphanhood.....	2
1.1.2 Orphans and Education.....	7
1.1.3 Number of Orphans by Gender, Grade and Province in 2003.....	8
1.1.4 Orphans by Gender and Category in 2003.....	10
1.1.5 Response by Ministry of Education.....	10
1.1.6 Response by NGOs.....	13
1.2 Statement of the Problem.....	16
1.3 Aim of the Study.....	17
1.4 Research Objectives of the Study.....	17
1.5 Research Questions.....	18
1.6 Significance of the Study.....	19
1.7 Theoretical Framework.....	20
1.8 Assumptions of the Study.....	21
1.9 Limitations of the Study.....	22

1.10	Operational Definitions.....	23
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>		<b>25</b>
2.1	What is Known about the Effects of Parental Loss on Child Development.....	25
2.1.1	Attachment Theory on Attachment, Separation and Loss.....	26
2.2	The Impact of Loss of Parents on Behaviour Problems.....	33
2.3	The Impact of Loss on Symptoms of Posttraumatic Stress.....	35
2.3.1	Historical Context.....	35
2.3.2	Definition of Dissociation.....	36
2.3.3	Normal Versus Pathological Dissociation.....	37
2.3.4	The Role of Dissociation in Response to Trauma.....	38
2.3.5	Culture and Dissociation.....	39
2.3.6	Etiology of Dissociation.....	41
2.4	The Impact of Loss of Parents on Academic Performance.....	43
2.5	Associations Between Behaviour Problems, Posttraumatic Stress Symptoms and Academic Achievement.....	44
2.5.1	Comorbidity and Posttraumatic Stress Disorder (PTSD).....	46
2.5.2	Comorbidity and School Performance in Children.....	47
<b>CHAPTER THREE: METHODOLOGY.....</b>		<b>50</b>
3.1	Research Design.....	50
3.2	Target Population.....	51
3.3	Sampling and Sample Size.....	51
3.3.1	Schools.....	51
3.3.2	Participants.....	51
3.4	Research Instruments.....	52
3.5	Data Collection Techniques.....	58
3.6	Data Analysis.....	58

CHAPTER FOUR: FINDINGS.....	59
4.1 The Impact of Loss of Parents on Behaviour Problems.....	59
4.1.1 Descriptives of the CBCL by Gender.....	60
4.1.2 Differences Between Teacher, Caregiver, and Youth CBCL Scores.....	62
4.1.3 CBCL, Age, Language Competence, and teacher ratings of pupils' general intelligence of the Pupils.....	65
4.1.4 Urban Versus Rural Reports on Behaviour Problems.....	66
4.1.5 Behaviour Problems in Children With or Without Parental Loss.....	69
4.2 The Impact of Loss of Parents Symptoms of Posttraumatic Stress...	75
4.2.1 Correlations Between the DES and Age, Language Competence, and teacher ratings of pupils' general intelligence.....	77
4.2.2 Means and SD for the DES Scale Differentiated by Gender And Rural Versus Urban.....	77
4.2.3 Means and Standard Deviations for the Dissociative Experiences Scale by Child Status Group.....	78
4.3 The Impact of Loss of Parents on Academic Performance.....	79
4.3.1 Univariate Descriptives of the Main Variables and Their Associations with Gender.....	80
4.3.2 Correlations Between the Main Variables.....	82
4.3.3 Differences in School Performance Between Urban and And Rural Pupils.....	83
4.3.4 Loss of Parent(s) Vs No Loss as Related to School Performance.....	85
4.4 Associations Between Behaviour Problems, Posttraumatic Stress Symptoms and Academic Achievement.....	88

CHAPTER FIVE: DISCUSSION.....	97
5.1 The Impact of Loss of Parents on Behaviour Problems.....	97
5.2 The Impact of Loss of parents on Symptoms of Posttraumatic Stress.....	105
5.3 The Impact of Loss of parents on Academic Performance.....	109
5.4 Associations Between Behaviour Problems, Posttraumatic Stress Symptoms and Academic Achievement.....	115
CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....	117
6.1 On the Impact of Loss on Behaviour Problems.....	117
6.2 On the Impact of Loss of Parents on Posttraumatic Stress Symptoms.....	118
6.3 On Impact of Parental Loss on Academic Performance.....	120
6.4 On Correlations Between Behaviour Problems, Posttraumatic Stress Symptoms and Academic Achievement.....	121
6.5 Directions for Further Research.....	119
6.6 Recommendations.....	122
REFERENCES.....	126
Appendix 1: Pilot Study.....	151
Appendix 2: Teacher Questionnaire.....	173
Appendix 3: Parent/Guardian Questionnaire – Child Behaviour Checklist (CBCL).....	182
Appendix 4: Pupil Questionnaire – Mathematics Test.....	196
Appendix 5: Pupil Questionnaire – English Test.....	210
Appendix 6: Pupil Questionnaire – Dissociative Experiences Scale II (DES II).....	223
Appendix 7: Pupil Questionnaire – Youth Self-Report.....	228

## List of Tables

Table 1.1	Orphans by Gender, Grade and Province .....	9
Table 1.2	Orphans by Gender and Category.....	10
Table 3.1	Characteristics of Respondents by District and Gender.....	52
Table 4.1	Alpha Reliabilities of the CBCL Internalizing, Externalizing and Total Problems Scales.....	60
Table 4.2	Means and Standard Deviations for CBCL Scales, for Boys and Girls Separately.....	61
Table 4.2a	Statistics for the ANOVA's on Gender and CBCL.....	62
Table 4.3	Paired t-test for the Differences between the Teacher, Parent, and Youth Report on Internalizing, Externalizing, and Total Behaviour Problems.....	63
Table 4.4	Correlations between CBCL Scales for Teachers, Caregivers and Children.....	64
Table 4.5	Correlations between CBCL Scales, and Age, Language Competence, and teacher ratings of pupils' general intelligence of the Pupils.....	65
Table 4.6	Differences between Rural and Urban Pupils on the CBCL Scales.....	67
Table 4.6a	Statistics for the Differences between Rural and Urban Pupils on the CBCL.....	68
Table 4.7	Behaviour Problems in Children With and Without Loss of Parents, as Perceived by Teachers, Caregivers and Youth (Total Sample).....	70
Table 4.7a	Statistics for two a priori contrasts (1: Both Parents Alive Versus the Others; (2: Both Parents Alive Versus Both Parents Dead) for Behaviour Problems in Children With and Without Parental Loss (Total Sample).....	71

Table 4.8	Behaviour Problems in Children With and Without Loss of Parents, as Perceived by Teachers, Caregivers and Youth (Urban Sample).....	72
Table 4.8a	Statistics for two a priori contrasts (1: Both Parents Alive Versus the Others; (2: Both Parents Alive Versus Both Parents Dead) for Behaviour Problems in Children With and Without Parental Loss Urban Sample).....	73
Table 4.9	Behaviour Problems in Children With and Without Loss of Parents, as Perceived by Teachers, Caregivers and Youth (Rural Sample).....	74
Table 4.9a	Statistics for two a priori contrasts (1: Both Parents Alive Versus the Others; (2: Both Parents Alive Versus Both Parents Dead) for Behaviour Problems in Children With and Without Parental Loss (Rural Sample).....	75
Table 4.10	Descriptives for the Dissociative Experiences Scale Items.....	76
Table 4.11	Correlations Between the DES and Age, Language Competence, and teacher ratings of pupils' general Intelligence .....	77
Table 4.12	Means and Standard Deviations for the DES Scale Differentiated by Gender and Rural versus Urban.....	78
Table 4.13	Means and Standard Deviations for the Dissociation Experiences Scale per Child Status Group.....	78
Table 4.14	Analysis of Variance with the DES as Criterion and Child Status as Factor.....	79
Table 4.15a	Univariate Descriptives of the Main Variables and their Associations with Gender.....	80
Table 4.15b	ANOVA for the Differences Between Girls and Boys on School Performance.....	81
Table 4.16	Correlations Between Age, Language, Math and teacher ratings of pupils' general intelligence.....	82

Table 4.17	School Performance Compared Between Urban and Rural Pupils.....	83
Table 4.18	Statistics for the Differences Between the Rural and Urban Pupils on Language, Math and teacher ratings of pupils' general intelligence.....	83
Table 4.19	Multivariate Analysis of Covariance (Age as Covariate) with School Performance Tests as Predictors of Rural Versus Urban Pupils.....	84
Table 4.20	Descriptives for Child Status as Related to School Performance.....	85
Table 4.21	Contrast Tests for the Difference between No Parental Loss versus Any Parental Loss (Contrast 1), and No Parental Loss versus Both Parents Dead (Contrast 2).....	85
Table 4.22	Child Status and Academic Performance in Rural Versus Urban Schools.....	88
Table 4.23	Correlations between Behaviour Problems, Dissociation, and School Performance (Total Sample).....	89
Table 4.24	Correlations between Behaviour Problems, Dissociation, and School Performance (Boys).....	90
Table 4.25	Correlations between Behaviour Problems, Dissociation, and School Performance (Girls).....	91
Table 4.26	Correlations between Behaviour Problems, Dissociation, and School Performance (Urban).....	92
Table 4.27	Correlations between Behaviour Problems, Dissociation, and School Performance (Rural).....	93
Table 4.28	Correlations between Behaviour Problems, Dissociation, and School Performance (With Parental Loss).....	94
Table 4.29	Correlations between Behaviour Problems, Dissociation, and School Performance (Without Parental Loss).....	95

## Acronyms

AIDS	Acquired Immune Deficiency Syndrome
BESSIP	Basic Education Sub-Sector Investment Programme
CBCL	Child Behaviour Checklist
CBOs	Community Based Organizations
CHIN	Children in Need
CINDI	Children in Distress
CSO	Central Statistical Office
DES	Dissociative Experiences Scale
ECZ	Examinations Council of Zambia
EFA	Education For All
HIV	Human Immunodeficiency Virus
IES	Impact of Event Scale
MoE	Ministry of Education
NAG5	Grade 5 National Assessment
NBTL	New Break Through to Literacy
NGOs	Non-Governmental Organizations
PMHP	Primary Mental Health Project
PTSD	Posttraumatic Stress Disorder
SDQ	Strengths and Difficulties Questionnaire
SEN	Special Educational Needs
SES	Social Economic Status
SIDA	Swedish International Development Agency
SPSS	Statistical Package for the Social Sciences
UNAIDS	United Nations Programme on HIV/AIDS
UNESCO	United Nations Education Scientific and Cultural Organisation
UNICEF	United Nations Children Emergency Fund
USAID	United States Agency for International Development
YSR	Youth Self Report

# **CHAPTER ONE**

## **INTRODUCTION**

This chapter contextualizes the problem statement and the background information pertaining to the social issue of parental loss in Zambia. Under its umbrella, the prevalence of orphanhood is portrayed in the form of statistical data. Thereafter, the escalating problem is discussed in terms of the response by various stakeholders, starting with the Ministry of Education (MoE), as a key player in the provision of education, followed by an articulation of the position of Non Governmental Organizations (NGOs). The chapter also presents the aim and objectives of the study and operationally defines the terms that were used in the study.

### **1.1 Background**

Discussed below, is an account of the cultural conception of parental loss. This marks an appropriate starting point in the understanding of the changes that have taken place over time in the perceptions and definition of orphanhood in Zambia.

## **1.1.1 The Social Issue of Parental Loss in Zambia**

### **1.1.1.1 Cultural Conception of Loss and Orphanhood**

Death is treated with the greatest respect in Zambia, irrespective of whether the relation to the deceased person is patrilineal, matrilineal or bilateral (WLSA, 1993). There are also a lot of beliefs connected to death and prescribed social behaviour when a death occurs. When a death occurs, it is expected that members of the bereaved family and that of the community will leave their usual activities and go to the funeral house and mourn. Inability to mourn by family members or neighbors conveys a message of being inconsiderate, hard-hearted, selfish, or being a wizard, and this could lead to alienation of oneself. When a person dies, there are a variety of mourning rites to be followed. The rituals tend to be ethnic-specific, age-specific and status-specific and, in certain instances, gender-specific.

In terms of age, there are differences in the way society mourns infants, children, single people, married people, adults and the elderly. In some of these categories, the differences are more pronounced in terms of funeral rites to be observed. However, regardless of the status or sex of the person who has died, a common element that applies to all is that it is a very sorrowful occasion to close relatives and well wishers. Everything comes to a stand still for close relatives until burial. This is the time when

the wider family's presence is not only important, but a must. It is thus not uncommon for people to travel long distances to mourn a close relative.

After burial, a family council meets, to review the cause of death (*isambo lyamfwa*)<sup>1</sup> and, above all, when the deceased has left children, to decide on issues of child custody and inheritance. In the past, if the deceased was married, a relative of his or her side (from the in-laws) would be appointed to succeed, meaning replacing the deceased as husband or wife. The general position under the various customary laws in Zambia is that the person who succeeds to the status of the deceased should keep a larger share of the property of the deceased on behalf of the remaining family and assume the obligations of the deceased. Hence, the Bemba proverb: "*mpyana ngo, apyana na mabala* (he who inherits the leopard inherits the spots) summarises the position (McClain, 1970). The significance of succession is psychological. People realized that it was necessary to find a meaningful replacement to ensure family stability. Since the chosen to replace the deceased is a member of the extended family, children do not feel lost as much as they would otherwise (WLSA, 1993). However, because of the AIDS pandemic, this routine, though still being practised, is on the decrease. Other factors such as poverty, have also had their toll on the practice, such that it is not uncommon for the

---

<sup>1</sup> *Isambo lyamfwa* – A review to the family council narrated by a surviving spouse or family member about what led to the death of the deceased

successors, who are mostly men, to be more interested in inheriting the property than in honouring the responsibilities that go with the status, such as looking after the surviving spouse and her children.

The above background provides a context to the changing status of children who have lost one or both parents. The concept of orphanhood, as understood today, is a recent phenomenon in the Zambian scenario because in the past children who lost their parents were automatically integrated in the extended family. As noted in the Joint USAID/UNICEF/Study Fund Project report (1999), although all languages in Zambia have a word for "orphan", it would not traditionally be considered appropriate to use it for a child living with an adult relative. In such a case, the child would naturally be regarded by the aunts and uncles as their own child. The child in turn, would refer to them as his/her mother and father. Due to forces of urbanisation the extended family has become weakened, such that loss of parents has acquired a different meaning. Because many foreign and local Aid-projects now provide benefits specifically for orphans, it has become necessary for guardians to differentiate between their own biological children and those of the deceased relatives. To this effect, the mostly used definition of "orphan" in the current official settings, is the one adopted by the Framework for the Protection, Care and Support of Orphans and Vulnerable Children Living in a World with HIV and AIDS, which defines an orphan as a child under 18 years of age whose mother, father or both parents have died

from any cause. Although 18 years of age is the cut-off point according to this definition, in the African context, it raises some concerns. Firstly, from the African cultural perspective, the conception of the passage from childhood to adulthood is characterized by physical developments such as puberty and the capability to perform certain acts culminating in initiation ceremonies, followed by entry into marriage, which varies markedly from the international age-related definition of an adult (Ncube, 1998). In the current Zambian context, many of the 18 year-old orphans are likely to be in high school, and very much dependent on others for material and emotional support.

Further, specific categorization of orphans from all causes can be described as follows:

- (i) Single orphan: a child who has lost one parent.
- (ii) Double orphan: a child who has lost both parents.
- (iii) Maternal orphan: a child whose mother has died (includes double orphan)
- (iv) Paternal orphan: a child whose father has died (includes double orphan).

This new development in the use of "orphan" terminology has had an unintended negative side effect in that it not only conflicts with the cultural use, but is "harmful to community development initiatives and negative to the family structure and the development of children and self-

reliance" (Joint USAID/UNICEF/Study Fund report, 1999:10). This same report refers to incidences where the orphan children single themselves out as well, particularly in relation to resources coming into the family as assistance to orphan children. Some orphans have been known to "show off" school uniforms provided by donors or to declare ownership over a sack of mealie-meal (maize meal, Zambia's staple food) provided to assist with the care of orphan children.

Another problem that has been highlighted in the above-mentioned joint report, as a consequence of the term "orphan", is that it contributes to stigmatisation and discrimination against orphans. Hence, it is not uncommon to hear of instances of daunting of orphan children by other children and sometimes of their abuse by adults. Although some of these incidences are said to be exaggerated by the informants in this study, as a strategy to increase the chance of accessing funding, they should be seen as an indication of a real and serious problem.

Parental loss due to a variety of causes, but predominantly due to the HIV/AIDS pandemic, has increasingly become a serious challenge to the African continent. Although in all parts of the world people have been and continue to be affected, the greatest concentration of HIV infection and AIDS-related deaths occurs in the developing world (Kelly, 2000). The UNAIDS report (2000) similarly echoes that HIV/AIDS has claimed 10 times more lives in the last two decades in Africa than all the world wars

combined. Most of the victims are parents whose deaths result in very difficult living conditions for their surviving children.

According to the recent UNICEF report (2006) the number of orphans from all causes has risen by more than 50 percent in Sub-Saharan Africa, where an estimated 12 million children aged 0-17 years have lost one or both parents to AIDS. The same report further notes that the burden of parental death from AIDS is greatest in Southern Africa, where HIV prevalence rates are highest. In Zambia, for example, 20 per cent of all children (more than 1.2 million) were orphans in 2005, over half of them due to AIDS, while 75,000 adults died from the killer disease in the same year (UNICEF, 2006).

### **1.1.2 Orphans and Education**

As the UNAIDS/UNICEF/USAID (2002) rightly notes, one of the strongest indicators that orphaned children are suffering is the absence from school and the education and sense of security it can provide. UNICEF (1999) reviewed the effects orphaning has on schooling and child labour in 20 sub-Saharan African countries. In all countries, children aged 5-14 who had lost one or both parents were less likely to be in school and more likely to be working more than 40 hours a week. Similar sentiments were aired in the recent UNICEF report (2006), where it was noted that orphans are at higher risk of missing out on schooling.

Since the year 2002 Zambia has been providing free education at primary level (grades 1-7), in practice a substantial number of schools are still demanding payment of school fees, uniforms and books. When a choice has to be made pertaining to who should go to school when resources are scarce, orphans are among the groups that are likely to be excluded. To this effect, a study in urban areas revealed that 32 percent of orphans are not receiving formal schooling, compared with 25 percent of non-orphans; in rural areas, the figures for children not enrolled in school were a staggering 68 percent of orphans compared with 4 percent of non-orphans (UNICEF/UNAIDS, 2002). The only hope has been for a substantial number of such children enrolling in community schools, which are a community initiative to supplement government efforts. In recent years, some of these community schools have begun to provide early childhood education, catering to the needs of very young orphans without caregivers, or to those whose caregivers are either too old or too young to give them adequate care.

### **1.1.3 Number of Orphans by Gender, Grade and Province in 2003**

As depicted in Table 1.1 below, the number of orphans attending basic school by province is quite significant with Copperbelt Province having the highest number, followed by Southern, Northern, Lusaka, Eastern, Central, Luapula, Western, and North-Western Provinces. There is a remarkable reduction in the number of orphans in Upper Basic Schools.

The reasons for this are mainly due to the national selection at grade 7 and some of the orphans obviously drop out due to direct costs since they are supposed to pay for their school requisites at this level.

**Table 1.1: Orphans by Gender, Grade and Province**

Province	Gender	Grade									Total
		1	2	3	4	5	6	7	8	9	
Central	Male	2,409	2,380	2,373	2,387	2,412	2,481	2,598	696	757	18,493
	Female	2,284	2,318	2,526	2,420	2,311	2,261	2,374	637	662	17,793
	Total	4,693	4,698	4,899	4,807	4,723	4,742	4,972	1,333	1,419	36,286
Copperbelt	Male	2,880	2,935	3,131	3,228	3,354	3,191	3,448	1,842	1,698	25,707
	Female	2,906	3,194	3,254	3,212	3,229	3,263	3,650	1,863	1,788	26,359
	Total	5,786	6,129	6,385	6,440	6,583	6,454	7,098	3,705	3,486	52,066
Eastern	Male	2,727	2,670	2,934	2,804	2,668	2,517	2,434	767	872	20,393
	Female	2,768	2,781	2,892	2,483	2,340	2,103	1,994	631	700	18,692
	Total	5,495	5,451	5,826	5,287	5,008	4,620	4,428	1,398	1,572	39,085
Luapula	Male	2,184	2,363	2,213	2,073	1,980	1,808	1,739	863	835	16,058
	Female	2,167	2,227	2,130	2,006	1,762	1,692	1,571	791	709	15,055
	Total	4,351	4,590	4,343	4,079	3,742	3,500	3,310	1,654	1,504	31,113
Lusaka	Male	2,289	2,141	2,349	2,518	2,805	2,994	3,276	1,594	1,548	21,514
	Female	2,334	2,281	2,558	2,721	3,050	3,104	3,508	1,490	1,530	22,576
	Total	4,623	4,422	4,907	5,239	5,855	6,098	6,784	3,084	3,078	44,090
North-Western	Male	1,342	1,221	1,218	1,130	1,120	953	989	586	651	9,210
	Female	1,178	1,269	1,078	1,033	901	856	845	442	497	8,099
	Total	2,520	2,490	2,296	2,163	2,021	1,809	1,834	1,028	1,148	17,309
Northern	Male	3,195	3,285	3,542	3,515	3,411	3,150	3,082	1,213	1,412	25,805
	Female	3,059	3,246	3,331	3,048	2,839	2,581	2,436	1,117	1,004	22,661
	Total	6,254	6,536	6,873	6,563	6,250	5,731	5,518	2,330	2,416	48,466
Southern	Male	2,947	3,016	3,227	3,241	3,543	3,506	3,704	1,543	1,565	26,292
	Female	2,750	2,916	3,154	3,125	3,275	3,356	3,414	1,474	1,338	24,802
	Total	5,697	5,932	6,381	6,366	6,818	6,862	7,118	3,017	2,903	51,094
Western	Male	2,509	2,221	2,299	2,136	1,950	1,669	1,790	729	761	16,064
	Female	2,187	2,083	2,142	1,958	1,809	1,633	1,585	654	668	14,719
	Total	4,696	4,304	4,441	4,094	3,759	3,302	3,375	1,383	1,429	30,783

Source: Zambia Annual School Census, 2003

### 1.1.4 Orphans by Gender and Category in 2003

Table 1.2 below shows the totals by gender and province. The gender distribution among orphans in Basic Schools seems to indicate that there are more boys than girls who lost their father only and mother only. On the other hand, there seems no difference between boys and girls who lost both parents.

**Table 1.2: Orphans by Gender and Category**

Province	Lost both parents			Lost father only			Lost mother only		
	M	F	Total	M	F	Total	M	F	Total
Central	5,216	4,851	10,067	7,483	7,168	14,651	5,794	5,774	11,568
Copperbelt	7,121	7,254	14,375	9,749	10,063	19,812	8,837	9,042	17,879
Eastern	5,895	5,270	11,165	7,748	7,233	14,981	6,750	6,189	12,939
Luapula	4,589	4,497	9,086	5,740	5,205	10,945	5,729	5,353	11,082
Lusaka	6,031	6,287	12,318	8,784	9,193	17,977	6,699	7,096	13,795
North-Western	2,234	1,977	4,211	3,521	3,089	6,610	3,455	3,033	6,488
Northern	7,163	6,405	13,568	10,101	8,494	18,595	8,541	7,762	16,303
Southern	6,790	6,607	13,397	11,017	10,153	21,170	8,485	8,042	16,527
Western	3,858	3,569	7,427	7,046	6,331	13,377	5,160	4,819	9,979

*Source: Zambia Annual School Census, 2003*

### 1.1.5 Response by the Ministry of Education

The literature on interventions for orphans by the Zambian government seems to indicate that responses have not been adequate or sufficient. Notable among these documents is a report by Faveri and Lungu (1998) in Sampa et al. (1999), on the evaluation of Children in Need (CHIN)

models of care for orphaned children project: the experience of Children In Distress (CINDI), Kitwe, which bluntly spoke of "the government's abdication of its responsibility" to provide adequately for orphans. The lack of government visibility is evidenced by its having no national orphan policy. However, despite this gloomy picture, there are growing signs indicating that the government is clearly concerned about the impact of the HIV/AIDS pandemic as evidenced by programmes put in place in various ministries. The permanent secretaries from the Ministries of Health, Education, Social Services and Children have formed a task force to look at the problem of orphans and vulnerable children with the goal of establishing a national co-ordinating body.

A point to note, and of relevance to the present discussion, is the Ministry of Education's response, where under the umbrella of Basic Education Sub-Sector Investment Programme (BESSIP), HIV/AIDS has been singled out as warranting special attention as an intervention programme in its own right. Some of the specific projects by the Ministry of Education in this area include:

1. the development of an articulated policy framework;
2. integrating life skills in the curriculum;
3. reorienting the School Guidance services so that among other responsibilities, it could be geared to spearhead the provision of psycho-social counselling with specific focus on HIV/AIDS

4. integrating HIV/AIDS focal point persons in all the provinces, districts and schools;
5. organizing HIV/AIDS stress management training for teachers
6. facilitating anti-AIDS clubs in schools
7. recognizing community schools as a way of providing education especially for orphans, drop-outs and other disadvantaged children;
8. encouraging open discussions on HIV/AIDS in classrooms;
9. initiating the process of compiling a working paper on strategies for introducing reproductive/sexual health education in schools in the framework of BESSIP.

An important intervention by the MoE is putting in place a bursary scheme for vulnerable and disadvantaged children, which targets orphans, street children and children with Special Educational Needs (SEN). The only problem which poses a potential challenge to the MoE is how to provide adequate quality service for the increasing number of bursary recipients.

Another point worth noting is that although life skills are incorporated in the curriculum, a substantial number of teachers are not adequately prepared to handle the subject. In a GRZ/UNICEF report (2002), it is recorded that about 25 percent of teachers reported not to feel qualified to teach the Life Skills subject.

4. integrating HIV/AIDS focal point persons in all the provinces, districts and schools;
5. organizing HIV/AIDS stress management training for teachers
6. facilitating anti-AIDS clubs in schools
7. recognizing community schools as a way of providing education especially for orphans, drop-outs and other disadvantaged children;
8. encouraging open discussions on HIV/AIDS in classrooms;
9. initiating the process of compiling a working paper on strategies for introducing reproductive/sexual health education in schools in the framework of BESSIP.

An important intervention by the MoE is putting in place a bursary scheme for vulnerable and disadvantaged children, which targets orphans, street children and children with Special Educational Needs (SEN). The only problem which poses a potential challenge to the MoE is how to provide adequate quality service for the increasing number of bursary recipients.

Another point worth noting is that although life skills are incorporated in the curriculum, a substantial number of teachers are not adequately prepared to handle the subject. In a GRZ/UNICEF report (2002), it is recorded that about 25 percent of teachers reported not to feel qualified to teach the Life Skills subject.

### **1.1.6 Response by NGOs**

The plight of orphans has not only been felt by the government, but by Non-Governmental Organisations (NGOs), Community-Based Organisations (CBOs) and religious institutions. If anything, it should be recognized that these organizations are really trying to supplement and fill the gaps left by what government is doing. Most of these organizations recognize that orphaned children should be cared for by the community rather than by institutions, which is a very thoughtful approach because research has shown that children who are cared for in orphanages exhibit more psychological problems compared to those exposed to the foster care system (Ahmed et al., 1996; Ahmad et al., 2005). However, institutions are still necessary for children who have no alternative care arrangement. Much of the work of these organizations tend to focus on strengthening families and extended families. Some NGOs and CBOs and religious groups provide direct assistance to orphans and their families in the form of food assistance, clothing and school fees. Many more, however, develop initiatives designed to encourage independence and self-reliance. Frequently, NGOs assist communities to develop community schools as a means to provide education. A majority assists communities to develop some sort of financial sustainability through income-generating activities, including oil pressing, raising chickens and gardening. The money is often designated to pay for school fees and uniforms for orphans. Unfortunately, from the UNICEF and UNAIDS report, "too often

the returns are minimal in proportion to efforts and resources invested". Sikwibele (2002) in her study on "Children affected by HIV/AIDS epidemic and community response to their educational and other basic problems" found that despite these organizations' genuine efforts, only a small percentage of Zambia's orphans receive assistance from anyone outside their extended family. For example, in Lusaka's Garden Compound it is estimated that only five to ten percent of such children in that area receive any support from programmes, and that this is consistent with what others have found or estimated. Sikwibele (2002) concludes that the gap between what children need and what is being done on the ground is huge. She further proposes that a mobilization approach must begin with enabling stakeholders in the area to consider the situation of all orphans and vulnerable children within their area (a village, compound, district, or country depending on the level at which one is working).

A notable observation from the above discussion is that although orphans are receiving considerable material support from NGOs, CBOs and religious groups, their psychosocial needs seem not to be adequately catered for. This is the case even when one looks at what the Ministry of Education is doing. The joint report by the Zambian government, USAID, UNICEF and SIDA (1999:11) rightly laments, "since the inception of the orphan issue, much discussion has taken place regarding the psychosocial needs of orphan children. However, as a whole, there has been slow response beyond the development of life skills training in community

schools. Interventions to date have not been effective at coping with the intense psychological trauma of losing a parent to AIDS and the stigmatisation from the community". The report further closes with a plea that interventions must show greater sensitivity to the psychosocial needs of the child and that there should be more perceptive recognition for the trauma that has been experienced and in many cases is still going on. It also notes that in their efforts to provide for the child's physical well-being, projects have often overlooked providing sufficient child counselling and psychological support. Sengendo and Nambi (1997), reporting on their findings in Uganda, echo a similar concern: "in spite of the many programmes doing a commendable job of assisting orphans with relief supplies such as food, clothing, bedding and providing sponsorship, many of the orphaned children continue to experience emotional problems and little is being done in this area of emotional support".

Concerned about the obvious lack of serious attention by the various organizations to focus on the psychosocial aspect of orphans, Kasonde-Ng'andu (2003) questions whether the idea of lumping together orphans and vulnerable children in the process of identification and assessment does not contribute to the negligence of the psychosocial needs of orphans. The approach of putting orphans and vulnerable children in one category of social problems may be problematic even if they are not

necessarily more economically vulnerable than non-orphan children (USAID/UNICEF/SIDA, 1999).

## **1.2 Statement of the Problem**

The Ministry of Education is committed to the principles of equitable access to education at all levels. Unfortunately, with the alarming increase in the number of orphans, who in Zambia are mostly victims of the HIV/AIDS pandemic, EFA is yet to be translated into meaningful practice. Equitable access to education at all levels really remains a mere dream for countries in the developing world (Kelly, 2000). The Ministry of Education (MoE), under its Educational Policy, *Educating Our Future* (1996), affirms that it will take positive action to ensure that the education system caters satisfactorily for the poor and vulnerable. It further states that priority in educational provision and in the distribution of educational resources will be in favour of whatever is more likely to benefit the poor and vulnerable. As a strategy to increase access to education for this category, Ministry of Education has put in place the above mentioned bursary scheme. However, with all these noble pronouncements on paper, it seems that there has been no comprehensive empirical study to explore the impact of loss of one or both parents on academic performance and psychosocial adjustment of orphans. Hence, the present study is designed to unveil the learning and psychological needs of orphans.

### **1.3 Aim of the study**

Aim of the study was to ascertain whether there would be significant differences between pupils with both parents alive and those who have lost one or both parents in academic performance, behaviour problems and posttraumatic disorder.

### **1.4 Research objectives of the study**

The specific objectives of the study were to:

1. test whether the orphans indeed show more elevated levels of posttraumatic stress symptoms as a consequence of their losses than their comparisons.
2. explore whether the overall academic performance of orphans is comparable to that of their non-orphaned peers.
3. assess whether there is a significant difference in academic performance between female and male orphans in comparison with their non-orphaned peers
4. assess whether orphans exhibit more behaviour problems than their non-orphaned counterparts.
5. ascertain whether rural versus urban setting is a factor in the perceived outcome pertaining to psychosocial problems and academic performance in orphans vis-à-vis their non-orphan peers.

6. find out whether losing one or both parents makes a difference vis-à-vis academic performance and psychosocial adjustment.

### **1.5 Research Questions**

The study aimed at answering the following research questions:

1. Do orphans score higher on a test for posttraumatic stress symptoms than their non-orphaned peers?
2. Is there a significant difference in academic performance between orphans and their non-orphaned peers?
3. Is there a significant difference in academic performance between female and male orphans and their non-orphaned peers?
4. Do orphans exhibit more behaviour problems than non-orphan pupils?
5. Is there a significance difference between rural orphans and non-orphan pupils compared to those in the urban area in the level of psychosocial problems and academic performance.
6. Is there a difference between losing one or both parents vis-à-vis academic performance and psychosocial adjustment.

## **1.6 Significance of the study**

As noted above, Zambia is facing a dramatic challenge of coping with orphans. In response to this challenge the Ministry of Education has put in place a bursary scheme to enable these children and their vulnerable peers to complete their education. Many organizations have also provided material assistance in the form of uniforms, food and funds to cover school fees. However, while these are worthwhile efforts, the psychological needs of these children have relatively been neglected. A lot has been said and written about the issue of orphaned children, but there is no study that has focused on the effect of loss of parents on the academic performance and psychosocial adjustment of the affected children. The current study therefore is intended to yield information on these very important aspects of the development and well-being of orphaned children. Its significance is threefold. It is hoped that the study will:

- (i) make a scientific contribution to the on-going debate about the massive increase in the number of orphaned children by systematic description and explanation of the academic and psychosocial problems of orphaned children compared to their non-orphaned peers.

- (ii) help in charting the foundations for effective strategies and interventions aimed at providing for the needs of the affected children.
- (iii) enable educational planners in the Ministry of Education and other key stakeholders including parents/families grappling with the problem at hand, to benefit from the emerging findings and recommendations.

## **1.7 Theoretical framework**

This study was guided by the Attachment theory which stipulates that human babies tend to form attachment to their significant others, especially parents. The formation of secure attachment with one or a few selected people as a major achievement in emotional development during the early years of life was recognized a long time ago by Bowlby (1982). Babies develop a strongly felt need to know that their parents/caregivers are psychologically and physically available and they will protect them and attend to their needs. In recent years, researchers from various disciplines: medicine, nutrition, developmental psychology, have consistently shown that all later personality development and adjustment evolve out of such earlier experiences. Ideas originating in attachment theory suggest that the loss or trauma is likely to affect an individual's behaviour. Main's (Main, Kaplan & Cassidy, 1985; Main & Hesse, 1990) deliberations in particular, on adult attachment representation, shed

further light on the phenomenon of adults' resolution of childhood loss or trauma.

Because of the impact of family disruption on the mental health of children, recent research has started to deal with the impact of childhood family disruption on young adults' adjustment. Zill, Morrison and Coiro (1993) found in young adults from disrupted families poor relationships with their parents, as well as elevated levels of emotional distress, problem behaviour, and a higher chance of dropping out of school. Although this study looked at divorce in particular, it has relevance to the present study in that they both have their roots in the attachment theory. In other words, although death and divorce are different, they are both very tragic and stressful. This study is specifically designed to focus on the impact of the trauma of losing one's parent(s) on academic performance and psychosocial adjustment.

### **1.8 Assumptions of the study**

As noted above, loss of a parent or both, is a tragically devastating experience, especially when it occurs at a tender age as is the case with the orphaned pupils in this study. It was therefore, assumed that:

1. Orphaned pupils would score higher on a measure of dissociation than their comparison group with both parents alive.

2. Orphaned pupils would exhibit higher levels of behaviour problems than their peers with both parents alive.
3. Orphaned pupils would perform significantly lower on all school performance tests than their peers with both parents alive.
4. Male pupils would perform significantly higher than their female peers on school performance tests.
5. Urban pupils would out perform their rural counterparts on all school performance tests.

### **1.9 Limitations of the Study**

Ideally, it would have been desirable to randomly select orphans from lower, middle and upper basic (grades 1-9) to not only make the sample reasonably large, but to make age-related comparisons possible. However, because the available nationally representative Assessment Tests of Learning Achievement are designed for grade 5, the study targeted grade 5 orphans and their non-orphaned peers. Another limitation pertains to the fact that the study had to be confined to only 2 provinces due to resource and time constraints.

Another point worth noting is that Socio-Economic Status (SES) was not included in the analyses, which is a serious limitation as the rural versus urban differences show that SES differences might easily account for significant part of the differences between the pupils. In addition,

information on the type of alternative care arrangement for the orphans in this study was also not reliably captured. It appeared to be impossible to get convergent information from different sources (pupil, teacher, parent/caregiver) about the precise care-giving and family arrangement in which the pupils who lost one or both parents had to live. Also due to time constraint the research instruments that were used could not be translated into local languages that are mainly spoken in research sites (Lusaka and Mpika).

### **1.10 Operational Definitions**

In this study, the key concepts below have the following operational meanings:

*Psychosocial* - Psychological/emotional and behavioural in nature.

*Adjustment* - pertains to behaviour or performance, which conforms to expected cultural standards or norms. e.g. being able to sleep at night, manifesting a reasonable amount of appetite, demonstration of a certain level of academic performance vis-à-vis typical behaviour, etc.

*Academic Performance* - Results on some selected school tests.

*Gender* – a socially and culturally constructed element of relationships based on perceived differences between sexes.

*Dissociation* – a disturbance or alteration in the normally integrative functions of identity, memory, or consciousness i.e. general disruption in memory and consciousness.

## CHAPTER TWO

### LITERATURE REVIEW

This chapter reviews relevant literature on the effect of parental loss. The review starts with what is known about parental loss on child development, followed by a discussion of the attachment theory on "attachment and loss". Thereafter, the review is presented according to the following order:

- (i) the impact of loss of parents on behaviour problems
- (ii) the impact of loss of parents on symptoms of posttraumatic stress
- (iii) the impact of loss of parents on academic performance and associations between problem behaviours, posttraumatic stress symptoms and academic achievement.

#### **2.1 What is Known About the Effects of Parental Loss on Child Development?**

The impact of the absence of a parent (parents) caused by death is very different from the normal separation anxiety that a child experiences from the age of nine months to about 18 months. At this stage, the child has not yet grasped the fact that though the mother disappears at times, she does not go forever, a concept that Piaget, a developmental psychologist,

called "object permanence" (MacMahon, MacMahon & Romano, 1995). The death of a parent is very stressful and causes serious disruption in the child's life. Once bereaved, orphanhood becomes a lifelong condition. Every child requires continued loving care and support throughout its childhood; for orphans, the lack of a parent figure exacerbates the social, psychological and spiritual problems attached with growing up (UNICEF, 2002). Unless these problems are strategically catered for, they can result in serious psychosocial difficulties. There is growing recognition of the long-term effects of such childhood trauma. Unfortunately, a deeper understanding of children's responses to trauma has been slow to emerge (Putnam, 1997).

### **2.1.1 Attachment Theory on Attachment, Separation and Loss**

The discussion of loss and its effect on child development has been well captured in the attachment theory. Attachment theory as developed by Bowlby (1982) is applicable to human social behaviour in response to traumatic experience such as loss of one or both parents. Attachment is an enduring emotional bond, not easily defined, impossible for an infant to describe for us, but of tremendous importance for the infant (Lefrancois, 1986). According to attachment theory, human babies tend to form attachment to their significant others, especially their parents, during the first year after birth. Bowlby (1980: 39) defined attachment theory as "the propensity of human beings to make strong affectional

bonds to particular others, and of explaining the many forms of emotional distress and personality disturbance, including anxiety, anger, depression, and emotional detachment, to which unwilling separation and loss give rise". The formation of secure attachments with one or a few select people as a major achievement in emotional development during the early years of life was highlighted by numerous empirical studies across the world (Cassidy & Shaver, 1999; Gowen & Nebrig, 2002). Babies develop a strongly felt need to know that their parents/caregivers are psychologically and physically available and that they will protect them and attend to their needs.

In recent years, researchers from various disciplines such as medicine, nutrition, developmental psychology, and education have consistently shown that later personality development and adjustment will be impacted by earlier experiences. Ideas originating in attachment theory suggest that loss of parents or other attachment figures is likely to affect an individuals' secure base behaviours, and their subsequent social and emotional development. Early work on separation and loss in children, together with John Bowlby's (1958, 1982) seminal conceptualisation of the attachment response as a biological function indispensable for human survival, provided a powerful new perspective on the effects of trauma on child development. The concept of attachment has been elaborated by many studies of normal, disturbed, and traumatized children. It is one of the most fruitful approaches to understanding normal and abnormal

development (Thompson, 1991). The concept of Unresolved Loss (Main, Kaplan & Cassidy, 1985; Main & Hesse, 1990) in particular, as related to the adult attachment representations of past attachment experiences, sheds further light on the risks of becoming an orphan for academic and social/emotional development.

Separation is the other side of the coin of attachment (Gordon et al., 1999). Bowlby stated that human beings are genetically predisposed to attach themselves to others and also to respond with anxiety to an unwanted separation. Throughout his career Bowlby contributed a lot to the psychological consequences of loss. Although his ideas about loss changed and developed over the course of his career, he continued to portray the loss of an attachment figure as a major factor in personality development. He viewed unresolved and suppressed grief as important pathogenic forces, and viewed grief itself as a natural part of the functioning of what he called the "attachment behavioural system", a system "designed" by natural selection as a protective bond between an individual and his or her primary attachment figure (Fraley & Shaver, 1999).

Although most literature tend to portray an attachment figure as a single person, who is usually the mother, reality shows that an infant or a child often develops attachment relationships with more than one person. Even in Western families, where the child's biological mother is traditionally the

attachment figure, the forces of economic transformation have led to drastic changes in family life. As the roles of women and men have changed, and continue changing, a substantial number of children are now regularly being cared for by more than one adult. Recognition of alternative attachment figures has been part of the attachment theory since its development (Cassidy, 1999). To this effect, Bowlby in his early writings (1969/1982) proposed a hierarchy of attachment relationships – first with the mother as the primary or principal caregiver and then to others (Howes, 1999). Similarly, Ainsworth (1967) reported from her empirical observations in Uganda in East Africa that nearly all babies in her sample who became attached to their mothers during the period of observation became attached to some other familiar figure as well – father, grandmother, or other adult in the household, or to older siblings.

An evaluation of various cross-cultural attachment studies following Ainsworth's Uganda study (Van IJzendoorn & Sagi 1999) found that a core element of attachment theory is the idea of the universality of the bias in infants to become attached, regardless of their specific cultural niche. In other words, even in a child-rearing environment in which mothers share their care-giving responsibilities with several other adults and older children, infants tend to become attached to their mothers and use them as a secure base to explore the world. According to Bowlby (1969/1982), responsiveness to crying and readiness to socially interact are among the most relevant variables in determining who will serve as

an attachment figure. Similarly, attachment security is dependent on child-rearing antecedents, particularly sensitive and prompt responses to the infants' attachment signals, although other factors may be relevant as well (DeWolff & Van IJzendoorn, 1997; Van IJzendoorn & DeWolff, 1997).

It follows that in most cultures, including in the Zambian context, this network of attachment relationships usually include biological parents, older siblings, cousins, grandparents, aunts, and uncles. The implication of this to the loss of a child's parent(s) is that such a tragic experience may not mean the loss of any stable attachment relationship. It should, however, be emphasized that protective factors for loss of parents are key determinant factors in understanding how children cope or deal with the situation. As Bowlby (1982) in his volume on "Loss" highlighted, if a child is securely attached to the parent before his/her death, it would enhance the transition of attachment needs to another protective person. In Zambia where there are multiple caregivers, we can logically bring in the idea of attachment networks. This is important and relevant to the discussion of loss and coping in that potentially the impact of loss of one or even both parents may, to a certain degree, be contained because of the presence of other stable attachment relationships. It must be mentioned however, that a child with a history of disorganized attachment resulting from abdicated care giving is likely to experience and manifest a deep psychological problem, maybe even develop a

reactive attachment disorder following the loss of a parent, which in turn is likely to make adjustment to the situation difficult, if not impossible.

The present study addressed three major research issues, namely; problem behaviours, posttraumatic stress symptoms and academic achievement.

Because of the impact of family disruption on the mental health of children, recent research has started to deal with the impact of childhood family disruption on young adults' adjustment. Zill, Morrison and Coirol (1993) found in young adults from disrupted families poor relationships with their parents, as well as elevated levels of emotional distress, problem behaviour, and a higher chance of dropping out of school. Although this study looked at divorce in particular, it has relevance to the present study in that they both have their roots in the attachment theory.

Writing on "traumatic and stressful situations", Elliot and Place (1998), noted that as with other aspects of coping with stressful events, the age at which children are asked to cope can have a crucial impact on how they deal with stressful events. They further argue that school-going children commonly in the aftermath of a significant bereavement will lose motivation to do schoolwork, and will often report intrusive thoughts or images associated with the dead person crowding into their minds when they try to work or study. Such intrusions might be taken to represent dissociative phenomena that indicate post-traumatic stress disorder if

they haunt the children for a long period of time (Main, 1999; Van IJzendoorn & Juffer, 2005). Several early studies under the Primary Mental Health Project (PMHP) in the United States of America, designed for the early detection and prevention of young children's school adjustment problems confirm the importance of being sensitive to children's psycho-social needs after experiencing a significant bereavement. Notable among these studies are studies of Garnezi and Rutter (1986), Honig (1986a, 1986b), and Johnson (1986). They all established that children who experience crises, such as parent divorce or death in the family, had more serious school adjustment problems than referred, non-crisis peers. Specifically, divorce was associated with acting out problems (in terms of the CBCL: externalizing problems) and death with withdrawal and anxiety (in terms of the CBCL: internalizing problems). These findings led to the development of a pilot prevention programme to train child-aides to work with children who have experienced recent crises. This focused, time-limited programme provided children with opportunities to identify crisis-related feelings, and to develop relevant coping strategies.

The emerging overall conclusion from the findings and experiences noted above is that stressful life events and circumstances predispose adjustment problems in children. Because such effects often appear in the form of academic declines and behaviour problems, they create vexing everyday problems for school personnel. If stressful events and

circumstances, such as losing one parent or both, can be taken as warning signs that adjustment and learning problems may follow, the challenge for all of us who are interested in the children's learning is to develop effective preventive interventions to forestall anticipated negative psychological consequences for children who experience those events (Cowen & Hightower, 1990). In Zambia, there is a growing recognition that orphan-hood poses a challenging problem. However, there seems to be no study that has explored the academic and psychological effects of such a phenomenon on the affected children compared to their non-orphaned peers.

## **2.2 The Impact of Loss of Parents on Behaviour Problems**

The loss of a loved one is a painful and often overwhelming experience. However, although all losses can be difficult, the death of a parent, or both of them, is generally thought to be exceptionally painful and to require extensive grief processing (Bonnano, et al. 2005). Almost since its inception as a formal discipline, psychology has held the core assumption that successful recovery from loss requires completion of the "work of mourning" (Freud, 1917:166). The failure to engage in or complete the grief work process is commonly seen as a primary cause of chronic, unresolved grief and subsequent psychosocial problems (Bowlby, 1980; Freud, 1917; Lazare, 1989; Parkes & Weiss, 1983; Worden, 1996).

As noted elsewhere above, attachment theory offers a valuable conceptualisation on separation and bereavement. A central notion in attachment theory is that infants' reactions to anxiety and fear consist of a repertoire of innate behaviours aimed at increasing proximity to a central caregiver, the attachment figure. In the course of the first year of life, these behaviours crystallize within the context of the relationship with the caregiver into organized strategies for dealing with stressful situations and negative emotions, particularly fear (Harari et al., 2005). Securely attached infants exhibit attachment behaviour when distressed and are readily comforted by the parent, whom they can turn to as a dependable secure base from which to explore their world (Ainsworth et al., 1978). Secure attachment is found to be associated with children's competency in regulating their negative emotions (Cassidy, 1999), their development of more satisfactory parent and peer relations (Bretherton, 1991), and more optimal cognitive abilities (Meins, 1997).

Bowlby, the founding father of attachment theory, sought to argue that the way an individual responds to loss stems from the way his/her attachment system has become organized over the course of development (Bowlby, 1980). He believed that individuals whose attachment systems are organized in such a way as to chronically anticipate rejection and loss (pre-occupied or anxious – ambivalent individuals) or to defensively suppress attachment-related feelings (avoidant or compulsively self-reliant individuals) are likely to suffer from

psychological and physical distress following bereavement (Fraley & Shaver, 1999). In developing these ideas, Bowlby paid particular attention to the function of attachment behaviour and the various factors that may shape the organisation of an individual's attachment system.

## **2.3 The Impact of Loss on Symptoms of Posttraumatic Stress**

### **2.3.1 Historical Context**

The developments in understanding childhood trauma and its sequelae go back to the latter half of the 19<sup>th</sup> century when clinical reports of children living in institutions, particularly orphanages, began to appear (Benedek, 1985; Langmeier & Matejcek, 1973). The children in question, mostly traumatized by the loss of their parents through death or abandonment, demonstrated developmental delays and intellectual deficits. Furthermore, early work on separation and loss in children, in conjunction with John Bowlby's (1958, 1982) seminal conceptualization of the attachment response as a biological function indispensable for human survival, provided a powerful new perspective on the effects of trauma on child development. The growing interest and attention to the problems and needs of traumatized children emanate from these early efforts. Furthermore, as the concern about the exposure to and experience of traumatic life events in the lives of children and adolescents has come to the forefront for mental health professionals, there has been a

corresponding interest in methods of screening and assessment (Strand et al., 2005).

Research concerning trauma and dissociation has historically tended to be predominantly retrospective, with a focus on the relation between abuse in childhood and high levels of dissociation in adulthood. It is only recently that investigators began to explore the relation between trauma and dissociation in childhood (Ogawa et al., 1997). Empirical work targeting children has provided evidence to the effect that childhood trauma can lead to elevated levels of dissociation not only in adulthood, but in childhood as well (Malinosky, Rummel & Hoier, 1991; Putnam, Helmes, & Trickett, 1993).

### **2.3.2 Definition of Dissociation**

The term "dissociation", has been used to describe a wide variety of processes and phenomena and it means different things in various contexts (Holmes et al., 2005). In neuropsychology and cognitive science, it has a methodological use, which is a specialized one and is well defined in its context (Cardena, 1994). For our purposes, the term is employed from a clinical perspective describing a wide array of phenomena (Holmes, et al., 2005). In this context, dissociation has been defined as "a disturbance or alteration in the normally integrative functions of identity, memory, or consciousness" (American Psychiatric Association, 1994). In

other words, dissociation is a pattern of general disruption in memory and consciousness that has been found to be an important cognitive component of children and adults coping with severe trauma (Becker-Blease et al., 2004). Dissociative experiences include amnesia, identity disturbance, age regression, difficulty with concentration, or trance states.

### **2.3.3 Normal versus Pathological Dissociation**

It must be mentioned that not all types of dissociation are pathological. DSM-1V (1994), asserts that dissociation should not be viewed as inherently pathological. Dissociative "trance" states, for example, are described as a normal part of certain religious and healing activities in all cultures (Putnam, 1997). Other forms of "dissociation" have also been viewed as part of "normal" experience" (Waller, Putnam, & Carlson, 1996). Because of the existence of these everyday experiences of "dissociation", the phenomenon has commonly been conceptualised as a continuum, from these examples of non-pathological dissociation through relatively mild pathological forms (e.g., depersonalisation/derealization) to more severe disturbances that culminate in the dissociative disorders, with DID as the most extreme case (Bernstein & Putnam, 1986).

### **2.3.4 The Role of Dissociation in Response to Trauma**

Some form of dissociation is viewed as clinically serving a psychological defensive response to overwhelming trauma (Ludwig, 1983). During times of trauma and overwhelming stress, dissociation may serve as a means of psychological escape when physical escape is not possible (Herman, 1997; Ludwig, 1983; Kihlstrom, 1990; Spiegel et al., 1988; Steinberg, 1995; Van der Kolk, 1987, 1996). The "fight or flight" response (i.e., wanting to flee the threat or fight the threat) typical of threatening situations may arise, but fighting or taking flight physically from the situation may not be possible. Thus the individual flees cognitively and emotionally by altering consciousness (Herman, 1997-cited by Gershuny & Thayer, 1999).

Sigmund Freud proposed a similar conceptualisation in his theory, popularly referred to as "Psychoanalytic" or "Freudian theory". According to this theory ego defence mechanisms are activated when an individual confronts serious anxiety and emotional conflict. The mechanisms are mental devices by which people protect and insulate themselves from psychic pain. Freud believed that all people employ such devices. They become pathological when they continually serve to distort reality and impair effective functioning (Vander Zanden, 1985). Putnam (1997) also alludes to pathological dissociation as occurring when the individual's degree of dissociation becomes markedly discrepant from that of peers.

By implication, there must be cultural variations as to where society draws the line of tolerance between what is perceived as normal dissociation and pathological dissociation. The section that follows below (see 5.05) discusses the cultural aspects pertaining to dissociation.

It must be noted that though dissociation may offer a means of escape from devastating trauma and stress when no other form of escape is possible, a number of authors (e.g., Classen et al., 1993; Herman, 1997; Terr, 1995), warn that its use over a prolonged period may be detrimental and ultimately result in even greater trauma-related distress for the individual. In other words, presence or continuance of dissociation long after the traumatic event may be a hindrance to adaptive functioning (Gershuny & Thayer, 1999).

### **2.3.5 Culture and Dissociation**

The impact of culture on psychopathology has been studied from two contrasting points of view. Universalists have focused on differences in degree and number in pre-existing dimensions and categories. On the other hand, relativists have been fascinated with the scope of cultural variation and with the interpenetration of culture and psychopathology. To this effect, they have tended to emphasize the uniqueness of phenomena within any given culture and the need to study them on their own terms. Draguns and Tanaka-Matsumi (2003) carried out a

comprehensive assessment of psychopathology across and within cultures. From this survey, they concluded that the interrelation of culture and psychopathology is considerable and should be studied in context and that observer, institution, and community variables should be investigated together with the person's experience of distress. Manifestations of dissociation in particular are very much shaped by culture and are subject to imitation and epidemic spread (Draguns & Tanaka-Matsumi, 2003). Cultural factors also determine the meaning that is attributed to these phenomena, and spiritual, magical, biological, or interpersonal causes may be assigned to them. Culture also affects the threshold beyond which manifestations of dissociation may be regarded as symptoms of a psychological disorder (Pakaslahti, 2001).

An important development to note in the discussion of dissociation and culture pertains to how the concept of "self" has evolved into a key construct in cultural psychology. It has been established that the concept of self can vary considerably across cultures (Sierra et al., 2006). In particular, recent studies suggest that the dimension "individualism-collectivism" determines to a great extent variations in self-experience across cultures. "Individualism-collectivism" relates to the degree to which the person experiences himself/herself as an autonomous, self-contained being, as opposed to feeling inextricably integrated into a social context (Hofstede, 1991, cited by Sierra et al., 2006). While western cultures construe the self as a stable and largely independent entity containing a

set of dispositional attributes, largely detached from context (Markus & Kitayama, 1991), collectivistic societies construe the self as being interdependent with the surrounding context. In this regard, as Sierra et al., (2006: 359) rightly sum up "it is the 'other' or the 'self-in-relation-to-other' that is central in individual experience". Zambia, like other African countries, represents a highly collective culture. As noted above, this collectivism is remarkably demonstrated during funerals and weddings when all relatives from all angles gather to participate in the ceremonies in question. Churches have also brought in another aspect of collectivism, whereby individuals tend to identify themselves with other members in the congregation and often carry out different activities collectively.

### **2.3.6 Etiology of Dissociation**

The etiology of dissociation has been mostly considered in relation to traumatic environmental influences. Environmental factors, specifically abusive childhood experiences, are associated with both pathological and non-pathological dissociation. Available literature indicate that children with dissociative disorders report high rates of childhood trauma and neglect (Coons, 1994; Fagan & McMahon, 1984). In prospective longitudinal studies, the link between early childhood adversities and later dissociative tendencies and even disorders has been established without the potential distorting influence of retrospective accounts of childhood experiences (Sroufe, 1979).

Many studies have compared traumatized and non-traumatized participants on dissociation measures. In a meta-analytic analysis of a large set of studies on the Dissociative Experiences Scale (DES, Putnam, 1997), Van IJzendoorn and Schuengel (1996) found indeed consistently elevated scores on the DES in maltreated subjects. According to Putnam (1997:64), "every published study of which I am aware, the traumatized sample has obtained significantly higher scores than the non-traumatized comparison group". However, Putnam (op. cit) acknowledges that most of these studies compared maltreated subjects with non-maltreated normal controls, not with clinical comparisons without a history of maltreatment

As noted earlier, loss of one or both parents is a tragically devastating experience, especially when it occurs at a tender age as is the case with the orphaned children in this study. In general, findings from research studies that have explored the relations among psychological trauma, dissociative phenomena, and various forms of trauma-related distress, have revealed fairly strong and consistent relations among the constructs in question. Individuals who have experienced a traumatic event are more likely to dissociate than individuals who have not, and individuals who experience more dissociative phenomena are more likely to also experience higher levels of trauma-related distress (e.g., Posttraumatic Stress Disorder, borderline personality disorder, bulimia).

## **2.4 The Impact of Loss of Parents on Academic Performance**

Because the experience of loss of a key figure in the family such as a parent is very traumatic, researchers have been interested in finding out the effect of such loss on children's achievement. It has been empirically examined whether children who experience loss of one or both parents tend to exhibit more serious school adjustment problems than their comparison peers who have not experienced such loss (Cown & HighTower, 1990). However, similar studies have not been conducted in Zambia.

With the increasing number of orphans due to the AIDS pandemic in Sub Saharan-Africa, several studies have focused on their socio-economic situation. Notable among these are those that have associated the school-related difficulties experienced by orphans to differential treatment at household level. Aspaas (1999) for example, found significant differences between male and female-headed households in Uganda, with indigenous children in male-headed households enrolling in school at a higher rate than school-age orphans in the same households. In contrast, rural women, who had the lowest levels of education, showed no partiality in enrolling both indigenous children and orphans in school when they were the household heads. Bicego et al. (2003) also found that losing one or both parents is significantly associated with diminished chances of being

at the appropriate grade level for age. Similarly, Onie's work in Nigeria (1995) suggests unequal treatment of orphans and indigenous children.

Madhavan (2004) also reviewed Foster et al.'s study where orphans complained of being made to work harder than biological children, not having enough food or money, irregular or shortened school attendance and neglected health issues. However, despite this gloomy picture, Guest (2001) reported one case in Zambia where a grandmother spared her foster children physical punishment, a culturally accepted form of discipline, so that they would not think they were being ill-treated for not having their own parents. Other studies (e.g., Lachman et al., 2002; Otieno et al., 2003) mentioned unavailability of funds for purchase of school uniforms, books, fees and various school levies as being a set of problems related to schooling.

## **2.5 Associations Between Behaviour Problems, Posttraumatic Stress Symptoms and Academic Achievement**

Several early studies (e.g. Felmer et al., 1981, 1975; HighTower, 1990) established that children who experience crises, such as parent divorce or death in the family had more serious school adjustment problems than referred, non-crisis peers. Specifically, divorce was associated with acting out problems and death with withdrawal and anxiety. Similarly, studies on the impact of major disasters on children's mental health and their

emotional functioning have revealed psychological problems such as anxiety, attention deficit and disturbed sleep. In addition, school-related problems have been cited as being one of the reactions to such trauma (e.g. Gordon, Farberow & Maida, 1999).

In Africa, Zambia included, little is known about child mental health problems. The few data available from Ethiopia (Ashenafi et al., 2001) and South Africa (Liang et al., 2002), as cited by Kashala et al. (2004), indicate prevalences to be in the range of 3-20%, surprisingly similar to those found in high income countries. In the case of Zambia, the absence of mental health services for children perpetuates the situation. The pilot study by Kashala and his associates (2004), with the "Strengths and Difficulties Questionnaire" (SDQ) in Kinshasa, the Republic of Congo, is one of its kind. In this study, they found that poor nutrition, low socio-economic status and illness increased the risk for mental health problems and low school performance.

In another study in Kinshasa, Kashala et al. (2006) explored hyperactivity-inattention symptoms and co-existing symptoms of emotional and behavioural problems among African (Congolese) school children and their relationship with health status, socio-demographic factors, and school performance. Findings revealed that children with hyperactivity-inattention symptoms had poorer school performance compared to their controls.

### **2.5.1 Comorbidity and Posttraumatic Stress Disorder (PTSD)**

Empirical research on Posttraumatic Stress Disorder (PTSD) and mental health outcomes has mainly been based on adult clinical samples. Among the relatively few studies targeting children, Seng et al. (2005) conducted a cross-sectional, descriptive epidemiologic case-control of a Midwestern state's Medicaid eligibility and paid-claims data for girls (0 – 8 years old) and teens (9 – 17 years old). All those with the PTSD diagnostic code were compared with randomly selected controls in relation to 3 sets of outcomes: (i) International Classification of Diseases, Ninth Revision (ICD-9) categories of disease; (ii) chronic conditions previously associated with sexual trauma and PTSD in women; and (iii) reproductive-health problems. Findings from this study revealed that in young girls who receive Medicaid benefits, PTSD was associated with increased odds of a range of adverse health conditions. The pattern and odds of physical comorbidity among adolescent recipients with PTSD was nearly as extensive as that seen in adult women.

While studies using clinical samples have yielded useful results, they tend to be biased. Hence, some researchers (e.g. Kar and Basita, 2006; Thabet et al., 2004; Wisdom, 1999) have suggested that assessment tools for determining comorbidity should take into consideration multiple variables like nature and intensity of the trauma, personal loss, individual vulnerabilities, posttraumatic adversities and psychological support;

furthermore the methods of evaluation and period passed since the trauma etc., are likely to influence the prevalence. The assumptions of the present study were that the children who suffered loss of one or both parents would exhibit more psychological and behaviour problems, which in turn would negatively affect their school performance.

### **2.5.2 Comorbidity and School Performance in Children**

Available literature on comorbidity and school performance reveal that emotional and behavioural problems such as depression, anxiety disorders, suicidal behaviour, psychosocial stress, substance and alcohol abuse, and posttraumatic stress disorder affect children's school performance. Notable among these is a comprehensive review by the President's New Freedom Commission on Mental Health (2003) which brought out the following findings:

1. over half of the adolescents in the United States who fail to complete their secondary education have a diagnosable psychiatric disorder (Stoep et al., 2003).
2. high depression scores associated with low academic achievement, high scholastic anxiety and poor peer and teacher relationships (Fosterling & Binser, 2002; Masi et al., 2001; Marmorstein, 2001; Chen et al., 1995).

3. anxiety disorders associated with drug use and dependence, suicidal behaviour and a reduced likelihood of attending college (Woodward et al., 2001).
4. teens who had made a suicide attempt in the previous twelve months showed significantly lower levels of school performance and school connectedness than non-attempters (Slap et al., 2001).
5. a significant negative correlation was found between psychosocial stress and grades ( $r=-.20$ ), indicating that students experiencing high levels of psychosocial stress tend to do poorly in school (Alatorre & Loss Reyes, 1999).
6. adolescents with a 6-month diagnosis of alcohol or drug abuse/dependence were found to have poorer school performance (Reinherz et al., 1993).

Based on the literature reviewed in this chapter leading hypotheses of this study were that because loss of one or both parents is a painfully devastating experience, especially when it happens at a tender age as was the case for the children in this study, the children with one or both parents dead are likely to:

1. exhibit more behaviour problems than their peers with both parents alive as measured by the Child Behaviour Checklist (CBCL), which assesses social competence and behavioural problems.

2. score higher on dissociation than their peers with both parents alive as measured by the Dissociative Experiences Scale (DES-II), DES-11 assesses the nature and level of disruption in memory or consciousness as a consequence of traumatic experiences such as loss of a beloved one.
3. score lower on the selected school performance tests (in this case Grade 5 competence tests in math and English) than their peers with both parents alive.
4. display associations between behaviour problems, dissociation and school performance as these areas of functioning are supposed to reinforce one another.

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter describes the methodology that was selected and used in the study. The methodology includes the research design, the target population, sampling techniques, the sample size, the instruments for data collection and how they were administered, data collection techniques and analysis.

#### **3.1 Research Design**

This is a quasi-experimental case-control study in which the independent variables (the experimental and control groups) and the dependent variables were as follows: the control group consisted of pupils with both parents alive; the experimental group consisted of three levels: children who lost both parents; lost father only; and lost mother only. Dependent variables were:

- (i) Academic performance
- (ii) Psychosocial adjustment
- (iii) Posttraumatic stress symptoms

## **3.2 Target Population**

The study population consisted of all children in grade 5 who had lost one or both of their parents and their peers in grade 5 with both parent alive. The study sample was selected from two provinces: one rural and one urban. Mpika District in Northern Province constituted the rural site, while Lusaka District in Lusaka Province was the urban site. The selection of these sites was based on the fact that they were among the provinces with the highest number of orphans in basic schools (Zambia Annual School Census, 2003).

## **3.3 Sampling and Sample Size**

### **3.3.1 Schools**

20 Schools were purposively selected, 10 in each of the two provinces. Purposive selection of schools was found to be appropriate because the decision depended on the schools with the highest enrolment of orphans.

### **3.3.2 Participants**

Grade 5 orphans and their non-orphaned grade 5 peers were included in the study. It was reasonably assumed that, being in the same class, these children shared similar characteristics. The reason for targeting this grade

was because one of the assessment tools designed by the Examinations Council of Zambia, for assessing school achievement, which is nationally valid and reliable, is based on grade 5.

Table 3.1: Characteristics of Respondents by District and Gender

Type of respondents	District					
	Lusaka		Mpika		Total	
	Male	Female	Male	Female	Male	Female
Teachers	199	196	137	248	336	444
Parents/care givers	45	350	63	337	108	687
Orphaned pupils	100	100	100	100	200	200
Non-orphaned pupils	100	100	100	100	200	200

As shown in the table above, there were more female parents/care givers than males because usually it is generally women who are found during working hours. There were also slightly more female teachers than males because the lower level of primary schools in Zambia tend to be dominated by female teachers.

### 3.4 Research Instruments

It must be mentioned at the outset that prior to the main study, a pilot study was conducted based on 19 pupils (10 girls and 9 boys), 2 teachers and 19 parents/caregivers, randomly selected from Ng'ombe Basic School in Lusaka, an urban area. Of the 19 pupils, 4 of the girls and 5 of the

boys were orphans, while out of the remaining pupils, 6 girls and 4 boys were non-orphans. The main aim of the pilot study was to determine whether or not the items in the CBCL and the DES would be applicable in the Zambian setting, whether they would be clearly understood by the subjects. The other objective of the pilot study was to determine the best way of administering the measures during the main study. Findings from this exercise showed that the instruments would yield useful results in the main study, although the CBCL was found to be rather too long and repetitive. Some items with a sexual connotation were also said not to be in line with the Zambian cultural beliefs. However, the research team tried to modify only a few aspects of the instruments in order to keep results comparable to findings in other countries (see appendix 1) for a detailed report on the pilot experience).

*3.4.1. Child Behaviour Checklist (CBCL)* - The CBCL (Achenbach, 1991), is a 112-item validated rating scale, consisting of eight subscales, which assesses social competence and behavioural problems. It is normed by gender for children aged 4-18 years and has been used worldwide across various cultures. The CBCL is generally considered to provide a comprehensive assessment of most dimensions of psychopathology in children, particularly anxiety and conduct disorders, and has been known to distinguish children with attentive disorders and hyperactivity disorders from normal children (Oosterheld & Haber, 1997). This instrument requires to be completed by the children's important caregivers, their

teacher(s) and the children themselves. Because usually a substantial number of children in Grade 5 have difficulty with understanding documents written in English, the research team had to explain the meaning of the items in the CBCL. In some cases the pupils received guidance on how to complete the pupil questionnaire (Appendix 7) in small groups of five and the research assistants were authorized to use the locally dominant Zambian language (Nyanja in Lusaka and Bemba in Mpika districts) to explain some of the English wording that may have been difficult for the children to understand. The researcher went round during this process to ensure that each child completed the questionnaire without being influenced or copying from other children. A similar approach was adopted for some of the parents/caregivers who could not understand the meaning of some of the items in the CBCL. However for this category of respondents the questionnaire was administered individually.

*3.4.2 Dissociative Experiences Scale – 11 (DES-11):* DES 11 is a 28-item, reliable and valid dissociation scale (Carlson & Putnam, 1993; Van IJzendoorn & Schuengel, 1996; Putnam, 1997). The DES operationalizes dissociation by inquiring about experiences and symptoms, identified by clinicians as central to Dissociation Identity Disorder (DID) and other dissociative conditions. The subjects had to indicate, on a 3-point rating scale ranging from "not true", "somewhat or sometimes true" to "very true or often true" whether they had experienced some of the

dissociation-related phenomena included in the DES. Being a relatively shorter instrument, the subjects completed the questionnaire individually, though with the guidance of the research team.

*3.4.3 Grade 5 National Assessment (NAG5)* - The Examinations Council of Zambia developed the NAG5 to assess grade 5 pupils' knowledge of the school curriculum in different subject areas. In this study two assessments were used: English and Mathematics. These are described below:

*3.4.4 English Test* - The NAG5 in English consists of 35 multiple-choice items in which three of the sections require the pupil to read brief paragraphs and then answer 10 questions about each paragraph, while the remaining 5 questions are general linguistic questions. A pupil's total score is the number of items (out of 35) answered correctly. The reliability of the English test was  $\alpha = .79$  ( $n = 795$ ), based on 35 items.

An example of the English test general question in section A is:

- Q1. Which one of the following will come last when put in alphabetical order?
- (a) Goat
  - (b) Cat

(c) Pig

(d) Dog

The following is an example of the English test item in section B, based on a brief passage entitled "The chief's son":

"Paul lives in a house at the top of the hill. Near the bottom of the hill is a river. Everyday, Paul and his mother go down the hill to fetch water from the river. Paul carries a gourd on his head and his mother carries a big tin on her head. When the gourd and the tin are full of water, they cover the open tops of the gourd and the tin with branches of leaves. Paul and his mother then return up the hill.

Paul's father is a chief and he lives at the top of the hill so that he can see for many miles. Paul is proud of his father. Paul hopes that he will become a chief when he grows up".

Q6. Where does Paul live?

(a) At the bottom of the hill.

(b) At the top of the hill.

(c) Far from the river.

(d) Near the river.

*3.4.5 Mathematics test* - The NAG5 in Mathematics consists of 45 items assessing pupils' computation and problem solving skills, and a pupil's total score is the number of items (out of 45) answered correctly. The reliability of the Math test was  $\alpha = .73$  ( $N = 793$ ), based on 45 items.

A sample item of the maths test is as follows:

Q17. Complete the series below:

9, 18, 27, ..., 45

(a) 28

(b) 29

(c) 36

(d) 38

*3.4.6 Teacher ratings of pupils' general intelligence* - The teacher ratings of pupils' general intelligence were based on class teacher's records of performance of pupils in previous class tests. These varied per school as well as per class in that some teachers assessed their pupils on a weekly basis while others did so on a monthly basis. In other words there was no uniformity in the tests that teachers had used to measure pupil's general intelligence because it was optional for teachers to provide this information about their pupils. The scoring of these tests involved indicating pupil performance on a rating scale ranging from "below average (40% and below), average (41-60%) to above average" (61%

and above). This provided a rough but useful estimation of pupil general intelligence.

The reliability of the two teacher ratings of pupils' general intelligence amounted to  $\alpha = .74$ , in a subset of the participants ( $n = 345$ ), for whom both test scores were available. Because one of the tests was completed by almost all participants, it was decided to use this test for further analyses.

### **3.5 Data Collection techniques**

Quantitative and qualitative research methods were used to collect the data. In the current report of the study emphasis is on the quantitative data collected through standard tests, questionnaires, and interviews.

### **3.6 Data Analysis**

The quantitative data was analysed using the SPSS statistical package. Frequencies and percentages were used in describing distributions of the single and summated variables. Cross tabulations, correlations, regression and factor analysis were used in presenting relationships between variables.