Department of Social Research
University of Helsinki
Finland

THE PSYCHOSOCIAL WELLBEING OF ORPHANS AND YOUTH IN RWANDA: Analysis of predictors, vulnerability factors and buffers

Tehetna Alemu Caserta

ACADEMIC DISSERTATION

To be presented, with the permission of the Faculty of Social Sciences of the University of Helsinki, for public examination in auditorium (XIV), University main building, on 09 January 2017, at 12 noon.
Helsinki 2017

Publications of the Department of Social Science 36 (2017)
Social Psychology

© Tehetna Alemu Caserta

Cover : Bruck Alemu

photo: Adapted from (Shutterstock)

ISSN 2343-273X (Print)
ISSN 2343-2748 (Online)
ISBN 978-951-51-2577-4 (Paperback)
ISBN 978-951-51-2578-1 (PDF)

Unigrafia
Helsinki 2017

Contents

Acknowledgements 5
Abstract 7
Tiivistelmä 9
List of original publications: 11
1. Introduction 12
1.1. The social history of orphan-hood in Rwanda 13
1.2. Objectives and structure of the dissertation 15
2. Theoretical and conceptual framework 16
2.1 Definition of an Orphan 16
2.2. Psychosocial well-being 17
2.3. Typology of living environments 18
2.4. Psychological vulnerability: stigma and marginalization 20
2.5. Social support: sources and functions 21
3. Previous findings and knowledge gap 23
3.1. The living environments 24
3.2. Stigma, marginalization and social support 25
3.3. Sources and functions of social support 27
3.4. Quality of care and socio-demographic factors 29
4. Aims of the study 30
5. Method 32
5.1. Respondents 32
5.2 Procedure and survey development 34
5.3. Measures 35
5.4. Statistical analysis 38
6. Result 38
6.1. Predictors of psychosocial well-being: living environments and quality of care 41
6.2. Perceived stigma, marginalization and the mediating role of social support 44
6.3. Perceived sources and functions of social support 50
7. Discussions 53
7.1. The living environment and quality of care 53
7.2. Stigma, marginalization and mediation role of social support 56
7.3. Sources and functions of social support as a buffer for stressful events 57

7.4. Limitations and practical implications 58
7.5. Conclusions and suggestions for further studies 60
Reference..64

Acknowledgements

First of all, I express my special appreciation and thanks to my two advisors Professor Anna-Maija Pirtillä-Backman and Professor Raija-Leena Punamäki for their continuous support and mentorship. I am thankful for their insightful comments and expertise and remain grateful for their patience and guidance throughout the PhD process.

I would like to thank the external examiners of this dissertation Professor Ilse Derluyn and Associate Professor Tatek Abebe, for their insightful comments that enriched the dissertation. I thank Professor Ilse Derluyn for agreeing to be my opponent at my public defense. I want to thank also the University of Helsinki Chancellor Travel Grants Fund and Dissertation Completion Grant by the University of Helsinki. Unfortunately I was never lucky in getting a fund to pursue my PhD program during the entire PhD period. I would like to thank my husband Doctor Abebe Shimeles who personally funded the entire PhD program.

I would also like to express my appreciation to the Ministry of Family and Gender Promotion (MIGEPROF) and non-government organizations (World Vision Rwanda, Care International, Red Cross Rwanda, and the Agency for Co-operation and Research in development) that believed in the cause of my research and provided me with the necessary administrative information and support during my stay in Rwanda. I would also like to express my special thanks to all officials of orphanages in Rwanda, social workers, foster families and street children shelter managers who so generously gave their time to talk to me, answer my questions and share their perspectives concerning the wellbeing of orphans in Rwanda. To all members of the focus group involved in my endless questions and quests, my special thanks also goes to you all for the immense discussions we have had that helped eventually in the formulation of the questionnaire. I would also like to express my profound gratitude to Mr. Jean-Baptite Ntakirutimana for all the support and insightful advices and discussions we had. I acknowledge with gratitude the support I received from the thirteen enumerators and social workers that I worked with during the survey administration. You worked tirelessly in the hope that this study would make a difference one day. Last but not least, I would like to express my profound gratitude to orphans of Rwanda whose life history is the basis of this dissertation and I thank you for your confidence and the trust you had put in me.

I would like to express my gratitude to my beloved mother, Pia Caserta Lehtinen, who passed away three years before the completion of this dissertation. I am grateful for all the sacrifices that she has made on my behalf to make me a better person that I am today. I feel tremendously

saddened by the fact that she didn't live longer to see the fruit of her hard work. Thank you mom, I wouldn't have made it this far without your support and selfless love. This PhD is a testament to your faith in me: I hope I have made you proud! I would also like to express my special gratitude and thanks to the husband of my mother, the late Professor Jukka Lehtinen, who believed in my education and provided me with all emotional and financial support throughout my undergraduate studies in India.

A special thanks goes to my beloved husband, Abebe Shimeles, for his tireless support throughout this journey. Your contributions to this PhD on a personal, social and scientific level are incalculable. These past years have not been easy academically or personally. Having you on my side when things were not always looking good was the greatest gift of all, for that I can say I am truly blessed. I just want to thank you from the bottom of my heart for the support that you have provided me in realizing my dream of becoming a researcher. You shouldered far more than your fair share of being a husband Thank you for believing in me! I will be forever indebted to your kindness and generosity.

A special thanks and appreciation goes to my brother Bruck Alemu who stood by me throughout this PhD journey through thin and thick moments of my life. I am grateful also to my two sisters Rachel Alemu and Meseret Alemu who encouraged me in this journey and waited so long to see the fruit of the hard work. Special thanks also to my father Alemu Geleta and his wife Yeshiembet W/Kiros and to all my sister and brother in-laws who have supported me one way or another in this journey. My appreciation extends to my uncle Dr. Elehu Feleke and his wife Professor Eva Poluha for their constant support and encouragement throughout this journey.

I will also like to thank Professor Kimmo Vehilainen for his unwavering support in discussing my statistical analysis and believing in my research. I am grateful to Dr. Emmanuel Bofah and Antero Olakivi for helping me with my data. I would also like to thank my friends (Dr. Daniel Gurara, Dolly-Pentikainen, Linda Gemeda, Tesfaye Esatu, Azeb hailu, Dr. Sebsebe Lemeta, Dr. Gutu Gulana, Dr. Florencia Sorthex, Salla Ahollla, Sinikka Veijola and Worke Fantahun) and many others that I have not mentioned in here who have supported me one way or another and believed in me throughout this journey.

I dedicate this dissertation to
The memory of my late mother, Pia Caserta Lehtinen
I love you dearly!

Helsinki, January 2017
Tehetna Alemu Caserta

Abstract

The psychosocial well-being of orphans in Africa has received little attention in the empirical literature despite experiences of orphan crisis in Sub-Saharan Africa precipitated by war, diseases, and natural disasters. Existing studies often treated orphans as homogenous group and compared them with non-orphans to assess differences in psychosocial well-being. This dissertation treats orphans as heterogeneous groups based on living environments available to them following the death of their parents and examines differences in their psychosocial well-being measured along psychological and social dimensions. The purpose of this dissertation is to shed light on factors associated with the psychosocial well-being of orphans by taking into consideration living environments, quality of care, the psychological vulnerability, and the sources and functions of social support in buffering stressful situations.

This study was based on a survey of Rwandan orphans (*N*=430) consisting of participants from four living environments (i.e., child-headed households, orphanages, streets, and foster homes) with different backgrounds including orphan status (i.e., double, paternal, or maternal) and causes of parental death (e.g., genocide, HIV/AIDS). The dissertation applied a set of instruments to measure psychosocial well-being, social support, stigma and marginalization, and socio-demographic factors through a close-ended questionnaire administered to survey participants.

First, the study assessed the psychosocial well-being of orphans in Rwanda by focusing on their living environments and the quality of care they received. Results indicated that the living environments played an important role where orphans in the orphanage exhibited a higher level of emotional wellbeing, lower mental distress and risk taking behavior than others. Quality of care such as having three meals a day and going to school were associated with high levels of emotional well-being and low levels of mental distress. However, length of time spent in a particular living environment was associated strongly with lower levels of emotional well-being and higher levels of mental distress.

Second, orphans' psychological vulnerability, such as perceived stigma and marginalization, were explored with respect to living environments, status and cause of parental death, and their roles on emotional well-being and mental distress. The result indicated perceived stigma and marginalization were associated strongly only with the living environments. High levels of stigma and marginalization were associated with lower level of emotional well-being and higher level of mental distress. Furthermore AIDS orphans exhibited higher levels of mental distress

compared to those orphaned by genocide or other causes after controlling for stigma, marginalization and social support. Low levels of social support due to stigma and marginalization contributed to low levels of emotional well-being and mental distress.

Third, the study explored the relative importance of social support in buffering stressful events. The findings suggest that higher perceived social support was associated with higher emotional well-being and lower mental distress. In addition not all sources and functions of perceived social support were equally beneficial for emotional well-being and mental distress.

In conclusion, this study showed that the psychosocial well-being of orphans depended on a wide range of factors including living environments, quality of care, psychological vulnerability (in the form of stigma and marginalization), and types of social support they received in the aftermath of parental death. The most important finding was that the variations in psychosocial well-being across living environments diminished significantly when controlling for stigma, marginalization, and social support, suggesting that community interactions with orphans were important factors in shaping the emotional and mental health of orphans. Understanding this complex reality could provide significant insight into the improvement of the psychosocial well-being of orphans.

Tiivistelmä

Vaikka Afrikan orpolasten määrä kasvaa jatkuvasti Saharan eteläpuolisten maiden sotien, sairauksien ja luonnonkatastrofien takia, empiirisessä kirjallisuudessa on käsitelty hyvin vähän Afrikan orpolasten psykososiaalista hyvinvointia. Tehdyissä psykososiaalista hyvinvointia kartoittaneissa tutkimuksissa orpolapsia on yleensä käsitelty homogeenisina ryhminä, joita on verrattu ei-orpoihin. Tässä väitöskirjassa orpolapsia tarkastellaan heterogeenisina ryhminä, jotka on jaoteltu sen mukaan, millaisessa elinympäristössä lapset ovat eläneet vanhempiensa kuoleman jälkeen psykososiaalisilla ja sosiaalisilla mittareilla tarkasteltuna. Tämän väitöskirjan tavoitteena on valaista orpolasten psykososiaaliseen hyvinvointiin vaikuttavia tekijöitä. Tutkimuksen kohteena ovat olleet elinolot, huolenpidon laatu sekä orpolasten psyykkinen haavoittuvuus. Lisäksi on huomioitu sosiaalisen tuen lähteet ja toimintatavat, jotta kuormittavia tekijöitä voidaan vähentää.

Tämän tutkimuksen perustana on ruandalaisille orpolapsille (N=430) tehty kysely. Kyselyyn vastanneet orpolapset tulivat neljästä eri elinympäristöstä (lasten itsensä hoitamista kotitalouksista, orpokodeista, kaduilta ja kasvattiperheistä). Eroja oli myös heidän taustassaan, orpostatuksessaan (täysorpo, isätön tai äiditön) ja vanhempien kuolinsyissä (esim. kansanmurha, HIV/AIDS). Tutkimukseen osallistujille tehtiin suljettuja kysymyksiä sisältänyt kysely, jossa hyödynnettiin erilaisia psykososiaalista hyvinvointia, sosiaalista tukea, leimautumista ja marginalisoitumista sekä sosiodemografisia tekijöitä mittaavia menetelmiä.

Ensin tutkimuksessa arvioitiin ruandalaisten orpolasten psykososiaalista hyvinvointia keskittymällä heidän elinympäristöönsä ja heidän saamansa huolenpidon laatuun. Tulokset osoittivat, että elinympäristön vaikutus oli suuri. Orpokodeissa elävät lapset voivat emotionaalisesti paremmin, kärsivät vähemmän henkisestä hädästä ja ottivat vähemmän riskejä kuin muissa elinympäristöissä eläneet. Korkeampi laatuista huolenpitoa, kuten kolme ateriaa päivässä ja koulun käynti, saaneet orpolapset kokivat suurempaa emotionaalista hyvinvointia ja vähemmän henkistä hätää. Tietyssä elinympäristössä vietetyn ajan pituus liittyi kuitenkin vahvasti heikompaan emotionaaliseen hyvinvointiin ja suurempaan henkiseen hätään.

Toiseksi orpolasten psyykkistä haavoittuvuutta, kuten esimerkiksi leimautumisen ja marginalisoitumisen kokemusta, tarkasteltiin suhteessa elinympäristöön, statukseen ja vanhempien kuolinsyyhyn. Lisäksi tutkittiin näiden tekijöiden vaikutusta emotionaaliseen hyvinvointiin ja henkiseen hätään. Tulokset osoittivat, että vain elinympäristöllä oli vahva yhteys koettuun leimautumiseen ja marginalisoitumiseen. Korkea leimautumisen ja marginalisoitumisen taso oli yhteydessä heikkoon emotionaaliseen

hyvinvointiin ja korkeaan henkisen hädän tasoon. Tuloksista ilmeni myös, että AIDS-orpojen henkisen hädän kokemus oli syvempi kuin kansanmurhan tai muiden syiden takia orvoiksi jääneiden, kun arvioidaan leimautumista, marginalisoitumista ja sosiaalista tukea. Leimautumisesta ja marginalisoitumisesta aiheutuneesta sosiaalisen tuen vähyydestä seurasi heikkoa emotionaalista hyvinvointia sekä henkistä hätää.

Kolmanneksi tutkimuksessa selvitettiin sosiaalisen tuen suhteellista merkitystä stressaavien tilanteiden sietokykyyn, joita vanhempien kuolema ja sen vaikutus henkiseen hyvinvointiin ja henkiseen hätään aiheuttavat. Tulokset viittaavat siihen, että koettu korkea sosiaalisen tuen määrä on yhteydessä parempaan henkiseen hyvinvointiin ja vähempään ahdistukseen. Tulokset osoittivat myös, että kaikki koetun sosiaalisen tuen lähteet ja toimintatavat eivät olleet emotionaalisen hyvinvoinnin ja henkisen hädän kannalta yhtä merkittäviä.

Tämän tutkimuksen johtopäätös on, että orpolasten psykososiaalinen hyvinvointi oli sidoksissa laajaan kirjoon erilaisia tekijöitä, kuten esim. elinympäristö, psyykkinen haavoittuvuus (leimautumisena ja marginalisoitumisena) sekä heidän saamansa sosiaalinen tuki vanhempien kuoleman jälkeen. Tärkein tulos oli, että psykososiaalisen hyvinvoinnin vaihteluväli pieneni huomattavasti, kun leimautumiseen, marginalisoitumiseen ja sosiaaliseen tukeen kiinnitettiin huomiota. Tästä voi päätellä, että orpolasten ja ympäröivän yhteisön välinen vuorovaikutus on erittäin tärkeä tekijä orpolasten emotionaalisen ja henkisen terveyden kannalta. Tämän kompleksisen todellisuuden ymmärtäminen voisi johtaa aivan uudenlaiseen käsitykseen siitä, kuinka orpolasten psykososiaalista hyvinvointia voidaan parantaa.

List of original publications:

This dissertation is based on the following publications:

I. Tehetna Alemu Caserta, Anna-Maija Pirttilä-Backman and Raija-Leena Punamäki (2016). The association between psychosocial well-being and living environments: a case of orphans in Rwanda. Child and Family Social Work , doi:10.1111/cfs.12308

II. Tehetna Alemu Caserta, Anna-Maija Pirttilä-Backman & Raija-Leena Punamäki (2016) Stigma, marginalization and psychosocial well-being of orphans in Rwanda: exploring the mediation role of social support, AIDS Care, 28:6, 736-744, DOI:10.1080/09540121.2016.1147012

III. Tehetna Alemu Caserta1, Raija-Leena Punamäki and Anna-Maija Pirttilä- Backman. (2016). The Buffering Role of Social Support on the Psychosocial Wellbeing of Orphans in Rwanda. Social Development .doi: 10.1111/sode. doi: 10.1111/sode.12188

The publications are referred to in the text by their Roman numerals.

The original articles are re-printed in this dissertation with the kind permission of the copyright holders.

1. Introduction

Children growing up without a mother, father, or any parent as their primary caregivers have become a common phenomenon in developing countries. It is estimated that the number of orphans worldwide reached 151 million in 2013 (UNICEF, 2013) and expected to rise every year by 15-20 million. One of the most tragic consequences of the AIDS epidemic, civil war, and natural disaster has been the increasing number of orphans, particularly in Sub-Saharan Africa (De Witt & Lessing, 2010). As the orphan crisis unfolded around the globe, the psychosocial well-being of orphans has received little attention in the empirical literature, particularly in Sub-Saharan Africa.

There is a large body of empirical evidence that reports most orphans in the Sub-Saharan Africa generally suffer from severe symptoms of psychological and physical problems compared with non-orphans (Ruiz-Casares et al., 2009; Escueta et al., 2014). According to these studies, the main reasons for the psychological and mental health problem experienced by orphans are the loss of their parents (Atwinie et al., 2005; Cluver & Gardner, 2006). Others also referred to both the quality of care orphans received in the aftermath of their parents' deaths and difficult relationships with communities (Taddesse et al., 2014). While both factors are important and can contribute to the psychosocial problems faced by orphans, this dissertation included the living environments available to orphans in the aftermath of parental loss as an important element in the variation of psychosocial wellbeing. Research has shown that the well-being of children, both in the short and long term, depends critically on where they live and the care they receive in that environment (Biangana et al., 2000; Biemba et al. 2010). As millions of children become orphaned around the globe due to conflict, diseases and natural disasters, there is a great need and urgency to establish conducive living environments for them. Providing psychosocial care and support beyond material provisions would be a formidable challenge for any community, government, or society.

The importance of this study can be gauged by the relative significance of the care and protection orphans need in their everyday lives to grow into healthy adulthood. These needs are realized through: (a) understanding the scale of orphan-hood that threatens the traditionally strong care giving capacity of communities; (b) identifying the psychosocial well-being predictors; (c) understanding the specific psychological vulnerabilities orphans are exposed to; and (d) learning the role society plays in buffering the stressful events caused by parental loss. The importance of this study, therefore, can be judged by the challenges

communities and governments face in fulfilling the psychosocial needs of orphans in an environment with a rapidly increasing orphan population in Sub-Saharan Africa and other parts of the developing world, and the policy implications and interventions that shape the lives of orphans.

1.1. The social history of orphan-hood in Rwanda

Orphan-hood is a dynamic concept that varies over time, space and cultures (Abebe, 2009). The social history of orphan-hood suggest that the roles and actions of communities, government institutions and other stake holders can be understood better by examining the predominant view about orphans prevailing at a particular time, space and culture. While the situation in Rwanda could be influenced by the global world view about orphans, it is also very likely that the social, historical and ethnic forces that led to the genocide, including abject poverty in the post-genocide period contributed to the many types of orphan-hood and the formation of society's attitude towards orphans. In their comprehensive study of orphan-hood in Rwanda, Veale et al. (2001) documented that Rwandan society regarded orphans as those left without the support and protection of an adult, which includes those whose parents had been put to prison, or abandoned by their biological parents. Thus, orphan-hood is equated with the degree of vulnerability associated with absence of an adult in the life of a child. According to Veale et al (2001: page 11), " orphan status in Rwanda is also attributed to children who have difficulties accessing shelter, food, medicines, education, clothing, affection and other psychosocial needs'.

The genocide that took place in April 1994 affected Rwandan society profoundly. More than 800,000 Rwandans were murdered in just 100 days, which resulted in one of the largest populations of orphans in Africa in a short period. The HIV/AIDS pandemic was also one of the causes of orphan-hood in Rwanda. Rape was used as a weapon of choice to destroy women's lives during genocide; attackers sought to inflict maximum pain and suffering by deliberately infecting women with the HIV virus (Donovan, 2002). According to Donovan's' study, countless women and girls who survived the genocide and rape later became HIV-positive; for these victims, the end of the massacre was just the beginning of another slow torture. The Human Rights Watch[1] reported that victims of sexual abuse during the genocide suffered persistent health problems such as sexually transmitted diseases, including HIV/AIDS. The genocide and rapes took place side by side, and most mothers died early from AIDS before they had a chance to take care of their children. Therefore, the experience of AIDS in Rwanda was not a gradual process like in many other countries affected by the AIDS pandemic;

[1] https://www.hrw.org/reports/1996/Rwanda.htm.

instead, it became a unique incident which wiped many mothers and children just as the genocide had.

Hundreds of thousands of children had been orphaned or otherwise separated from their parents due to genocide (Ministry of Gender and Family Promotion, MIGEPROF, 2006). The number of orphans that were created during this period was estimated to be between 850,000 and 1 million—roughly 10% of the total population of the country according to the statistics obtained from Rwanda at the time of data collection in 2009. The extreme violence to which these children were exposed has become a unique and traumatic problem for Rwanda (Dyregrov et al., 2000). For these children, the genocide was not just a historical event, but an inescapable part of daily life entrenched permanently in their psyches. Losses occurred at different levels (e.g., human, physical, and psychological) and led to significant social repercussions (Munyandamusta et al., 2012).

The traditional social structures, including extended family networks that cared for orphans under normal circumstances were severely eroded by genocide and the AIDS epidemic (Veale & Dona, 2003). As a result, Rwanda languished severely in caring for orphans long after the disaster that led to these human tragedies had passed (Neugebauer et al., 2009). As these children struggled to meet their basic needs, they had to also deal with the incalculable effects of psychological problems, isolation, and marginalization.

According to the National Policy on Orphans and Vulnerable Children (OVC), released by the Government of Rwanda, there is a clear commitment to address the material and psychological needs of orphans (MIGEPROF, 2007). These needs include rights to: (a) a safe life, (b) health and development, (c) education, (d) a conducive family environment, and (e) freedom from stigma and discrimination, to name just a few. In addition, the OVC report indicated that orphans were still experiencing economic hardship, lack of love and attention, withdrawal from school, and psychological and emotional difficulties. Even though the government of Rwanda laid out these objectives, achieving them has been very challenging.

Orphan crises have also been documented in many other African countries, including Kenya (Nyambedha et al., 2001), Uganda (Oleke et al., 2005) and South Africa (Cluver, Gardner, & Operario, 2007), where the HIV/AIDS pandemic have destroyed the traditional care structure. Typically, families, kin and communities are at the frontline of the psychosocial support available to orphans in Africa (Foster, 2000; UNICEF, 2003). However, such social structures are not sufficient in the face of major catastrophes, as witnessed in Rwanda (Veale & Dona, 2003; Veale et al., 2001). In most cases, in communities overburdened by social fragmentation, crippling poverty and the loss of labour due to the

HIV/AIDS pandemic, the capacity of extended family members is highly constrained, and they are unable to care for orphans (Heymann et al., 2007; Zimmerman, 2005).

1.2. Objectives and structure of the dissertation

The main objectives of this dissertation were to investigate the conditions under which orphaned children organized their daily lives, the challenges they encountered, and the degree to which the support they received or lacked was an important determinant of their psychosocial well-being. Studies that compared the association between living environments and the psychosocial well-being of orphans are limited and those available compared only two living environments by excluding other types of living environments which as a result restricted the comparison of studies across Africa. The objective of the present study was to fill the knowledge gap in the literature by comparing the independent roles of the most common living environments that emerged in Rwanda and in most other countries in Sub-Saharan Africa following the deaths of parents and their role on the psychosocial well-being of orphans.

The study also explored the psychological vulnerabilities orphans faced from their communities. The literature on stigma and marginalization identified AIDS-related stigma as one of the most common sources of poor mental health for orphans in Africa (Atwine et al., 2005; Campbell et al., 2010; Cluver et al., 2008; Mudippan et al., 2013). This study extended the previous studies by incorporating genocide and other causes of parental death to examine the association between stigma and marginalization with emotional well-being and mental distress. Another understudied subject in the literature has been the role of social support in mediating between stigma and marginalization, and its role in improving emotional well-being and relieving mental distress.

Finally, the study explored the importance of having different sources and functions of social support to buffer stressful events. There is sufficient empirical evidence to suggest that social support received from various sources has varying degrees of effect on psychosocial well-being (Helgeson, 2002; House, 1981; Lakey & Cohen, 2000; Zhao et al., 2011). Therefore, the study examined the sources and functions of social support orphans received or lacked from the community. In this study, sources of social support (i.e., relatives, community, other adults and peers) and functions of social support (e.g., emotional, informational, instrumental, and companionship) were analyzed to determine their roles in buffering stressful situations and improving the emotional and mental health of orphans.

The main research questions of this dissertation are therefore: whether or not the psychosocial wellbeing of orphans differed across their living environments; how does the psychological vulnerability of orphans in terms of stigma and marginalization translated into psychosocial wellbeing? And which sources and functions of social support are beneficial in buffering a stressful event?

This introductory chapter gives the background and objectives of the dissertation. Chapter 2 focuses on the conceptual framework used in this dissertation and presents concepts and definitions related to: orphans, psychosocial well-being; the emergence of the various living environments for orphans in Rwanda; the psychological vulnerability orphans are exposed to in terms of stigma and marginalization; and the need to distinguish between the sources and functions of social support. The focus in Chapter 3 is a review of previous studies and an effort to address the knowledge gap in the literature. Chapter 4 describes the data and methods used in the three sub-studies. The main results are reported in Chapter 5 in response to the main research questions. The discussion in Chapter 6 is based on the results of the present study, and highlights the importance of attending to the psychosocial well-being of orphans and support from the community. Chapter 7 concludes with an emphasis on social support and the lack of it in influencing the psychosocial well-being of orphans. The chapter also contains a reminder of the dire consequences of negligence by society to the psychosocial well-being of orphans. The summary section reflects the lessons that can be drawn from this study to enhance awareness and improve decision-making among governments, non-governmental agencies, and practitioners when promoting the psychosocial well-being of orphans.

2. Theoretical and conceptual framework

2.1 Definition of an Orphan

An *orphan* is defined as a child who has lost one or both parents (UNICEF & USAID, 2004). UNICEF and its global partners adopted the broader definition of orphan in the mid-1990s, as the AIDS pandemic resulted in the death of millions of parents worldwide and left an ever-increasing number of children growing up without one or more parents. The terms *single orphan*—the loss of one parent, and *double orphan*—the loss of both parents—became common definitions when dealing with the growing crisis. Other definitions of an orphan include *paternal orphans* to represent those orphans who lost only a father, and *maternal orphans*—those who lost only a mother (UNAIDS Global Report, 2008). There are also other orphan

definitions based on the cause of parental loss, such as HIV/AIDS orphans, genocide orphans, and other orphans. *HIV/AIDS orphans* are those orphans affected by HIV and, thus, orphaned by the pandemic. *Genocide orphans* are those who lost their parents during the 1994 Rwandan genocide. Finally, *other orphans* are those orphans who lost their parents due to other causes, such as tuberculosis, pneumonia, and malaria.

This dissertation adopts the internationally accepted definition of an *orphan*, which refers to children below the age of 18; however, the youth who had lost their parents due to genocide, AIDS, and other causes were also included in the analysis, as most of them still lived in orphanages, foster homes, or child-headed households during the survey; and did not cease to depend on care-givers for their needs and protection (see also Abebe, 2009 for the global context). In addition, some studies (Thurman et al., 2006; 2008; Schaal & Elbert, 2006) undertaken in Rwanda on related subject included youth and adolescents, allowing an opportunity for this dissertation to make comparisons with these studies. While the World Health Organization (2005) defined *adolescents* as those within 10-18 years of age, and *youth* below 25 years of age, in this dissertation the age groups were classified into three specific categories: younger orphans (ages 10-15), adolescents (ages 16-18), and youth (ages 19-25). Such a classification helps to capture the different levels of exposure to the violent events during the genocide and its effect on psychosocial well-being of orphans belonging to different age groups.

2.2. Psychosocial well-being

The term *psychosocial* refers to the relationship between psychological factors and social development, recognizing that mental health is closely linked to culture, traditions, and relationships (Biangana et al., 2005). *Psychosocial well-being* refers to the "positive age- and stage-appropriate outcome of children's physical, social, and psychological development and is determined by a combination of the child's natural capacities and his/her social and material environments" (Richter et al., 2006, p. 15). This definition implies that living in an environment that promotes the emotional, physical, and social well-being of an orphan is vital. Santrock (1999) also described psychosocial processes as socio-emotional processes and defines them as changes in an individual's relationships with other people, emotions, and personality. Based on the above definitions, insufficient provision of psychosocial care is expected to have severe consequences for emotional well-being and mental health, some of which could be permanent (Danese et al., 2008; Rutter, 2010). Therefore, positive

psychosocial well-being is achieved when one's emotional state and social relationships are predominantly healthy and adaptive; conversely, poor psychosocial well-being is found when they are mostly negative, unhealthy, or maladaptive (Gilborn et al., 2006).

Despite the wealth of research on well-being, there is no agreement as to how it should be defined and measured. In their review article on child well-being, Pollard & Lee (2003) argued that there is no standard method to assess well-being in children, and moreover, measuring well-being in only a single domain does not accommodate the complex nature of childhood. In addition, they reported that well-being has been studied across a wide range of disciplines, age groups, cultures, communities, and countries with no common definition such that comparisons between studies have been hampered. There is, however, a growing trend in the literature of taking a multidimensional definition of well-being, including the physical, psychological, and social aspects.

Following the review by Pollard and Lee (2003), psychosocial well-being is defined and operationalized in this dissertation in terms of psychological and social dimensions. The psychological domain of well-being includes measures that pertains emotional well-being and mental distress. The social well-being dimension encompasses social connectedness, networks, and how orphans perceive their social lives around communities. The social domain involves risk-taking behaviours and decision-making processes that impact psychosocial well-being. According to Ryff (1995), the social domain influences personal growth, autonomy, and purpose in life, which together underpin overall well-being. Research has also shown that the environments in which children grow, including the presence and roles of families, friends, and social networks, shape attitudes of children towards risk-taking behaviour, and eventually shape their personal growth (Margo et al., 2006; Morrow, 2001). It is evident that orphaned children are not in a position to benefit from the discipline and guidance provided by parents and, thus, are vulnerable to all kinds of external problems.

In this dissertation, psychosocial well-being is treated as a dependent variable explained by several independent variables, including living environments, quality of care, stigma and marginalization, social support, and socio-demographic factors (e.g., age, sex, education, material provisions such as food, region of residence, etc).

2.3. Typology of living environments

Studies conducted in Africa mostly considered orphans as homogenous groups and compared their psychosocial well-being with non-orphans

(Cluver & Gardner, 2007; Nyamukapa et al., 2008). In this dissertation, however, orphans are treated as heterogeneous groups that vary by the type of living environments made available to them, which could be challenging in addition to the psychological distress caused by parental death. The heterogeneity of orphans is captured by the type of care, stability, and protection afforded to them in their corresponding living environments.

Research showed that the long-term well-being of a child depends critically on the type of living environment and the quality of care they receive in those environments (Biangana et al., 2000; Biemba et al., 2010). A number of living environments for orphans have evolved in Africa during the last decade. Residential care, the most common type of living environment, includes the extended family, foster families, group homes, orphanages, and community-based care (Biemba et al., 2010). There are also millions of orphans in Africa who are not served by the traditional care systems, but instead live in environments such as child-headed households; yet, they have received little attention by researchers (Daniel & Mathias, 2012). As a result, various types of alternative living environments have emerged in Africa in the last decade, including child-headed households that emerged as older children were obliged to look after their siblings (Foster & Williamson, 2000). A number of children also live on the street without any shelter or reliable livelihood in some parts of Africa. The driving forces in the formation of "street children" are mostly poverty and destitution. Yet, others are also forced to live on the streets due the loss of parents. These children are usually exposed to hunger, violence, and diseases, and hence are victims of verbal, physical, and sexual abuses that result in stigma and discrimination as they are labeled as criminal vagrants[2].

The National Policy on Orphan and Vulnerable Children (OVC) identified 15 categories of orphans and vulnerable children who require care and support (MIGEPROF, 2006). These categories include: children living in households headed by children ;children in foster care; street children; children living in centres; children in conflict with the law; children with disabilities; children affected by armed conflict; children who are sexually exploited and/or abused; working children; children affected/infected by HIV/AIDS; infants with their mothers in prison; children in very poor households; refugee and displaced children; children of single mothers; and children who are married before the age of maturity.

The *living environment* in this dissertation refers to the type of living arrangements made available to orphans following the loss of their parents.

[2] http://africaeducationaltrust.org/street-children/)

Some living environments have long existed as part of the traditions of caring for orphans (e.g., kinship-care or foster homes), while others—such as orphanages—were introduced by governments, faith institutions, or non-governmental organizations (NGOs), or charities, while others such as child-headed households are a relatively new phenomenon., 2009). For the purpose of this study, only those orphans in child-headed households, orphanages, foster homes, and on the streets were considered for analysis for the purpose of comparing living environments with and without adult supervision.

2.4. Psychological vulnerability: stigma and marginalization

This study explored the magnitude of stigma and marginalization experienced by orphans together, as the two conditions reinforce and complement each other. While the two concepts co-exist, they are not identical. *Stigma* is a consequence of "coercive" marginalization, including labeling, stereotyping, separation, status loss, and discrimination (Goffman, 1963; Link & Phelan, 2001; Link & Phelan, 2006; Sagric et al., 2007). Stigma and marginalization are among the many risks and vulnerabilities to which orphans are subjected in many societies. The exposure to stigma and marginalization takes many forms (Link & Phelan, 2006), including psychological and behavioral, with varying degrees of frequency and intensity, some explicit and others covert. This study focused on incidence of stigma and marginalization as perceived by orphans, following the conceptualization by Link and Phelan (2006) and Deacon and Stephany (2008).

The theoretical literature has conceptualized stigma in many forms (Link & Phelan, 2001). Some authors approached it from the processes, attributes, and dynamics that give rise to stigmatization (Jones et al., 1984), while others considered the full range of actions taken by society against the stigmatized person or group (Link & Phelan, 2006). The approach by Jones et al. (1984), which formalized the insights of Goffman (1963), emphasized specific features, or *marks*, that facilitate or weaken the stigmatization process in the lives of victims. On the other hand, Link and Phelan (2006) conceptualized stigma as the co-occurrence of its components: labeling, stereotyping, separation, status loss, and discrimination. Accordingly, they reported that, normally, the components occur sequentially where first, people "distinguish and label individuals, which then evolves into linking labeled individuals with negative stereotyping, and then separation is created between labeled people, who are called 'them,' and others 'us'."

Accordingly, the labeled persons experience status loss, culminating into marginalization and discrimination (Link & Phelan, 2001, p. 367).

Stigmatizing attitudes towards orphans may be precipitated by misconceptions about the loss of parents and, in some cases, stereotyping of certain dreaded diseases such as AIDS. Socially stigmatized groups, by definition, have relatively low status and little power, and find it difficult to avoid society's consensual negative images of them (Hoggen, 2005). Consequently, Hoggen argues that stigmatized groups tend to internalize these evaluations and can form unfavorable self-images that can manifest as low self-esteem. It is these feelings that give rise to the notion of being discriminated and marginalized (Santrock, 1999).

Social marginalization is characterized by the dynamics in the social status of individuals or groups (Sagric et al., 2007). Marginalized people also have poor control over resources, and their limited social roles cause low self-confidence and self-esteem, and lead to various psychological problems (Sagric et al., 2007; Bird et al., 2004; Roeloffs et al., 2003; Wright et al., 2000). From the foregoing, it is clear that stigma cannot be seen in isolation from marginalization. In fact, one of the end results of stigma is discrimination that often leads to disempowerment and limited economic and political opportunities (Link & Phelan, 2001), and which is closely related with the concepts of exclusion and social marginalization according to Deacon & Stephany (2008). The phenomenon of social marginalization is characterized by the dynamics in the social status of individuals or groups, in which marginalized people have poor control over their lives and available resources (Deacon & Stephany, 2008). Both stigma and marginalization are possible pathways to physical and mental illness of victims, mainly because they lead to limited social relationships (House et al., 1988); poor self-control over orphans' lives and available resources often causes low self-esteem, and various psychological and mental problems (Sagric et al., 2007).

2.5. Social support: sources and functions

Social support as a moderator of life stress was well-illustrated and described by Cobb (1976). He defined social support as a "belief that one is cared for and loved, esteemed and valued and belongs to a social network of communication and mutual obligation" (Cobb, 1976, p. 300). In practice, researchers have used different approaches and methods to measure social support (Lakey & Cohen, 2000). For instance, Lakey and Cohen (2000) identified three theoretical perspectives on social support research. First, the *stress and coping perspective* focuses on support contributing to health by

protecting people from the adverse state of stress. The *social constructionist perspective* states that support has direct influence by promoting self-esteem and self-regulation in spite of stressful events. Finally, the *relationship perspective* proposes that social support cannot be separated from the relationship process that brings about companionships, intimacy, and low social conflict.

Research identifies two mechanisms through which perceived social support influences psychosocial well-being. These mechanisms are (a) promoting mental health and optimal development as a primary function, and (b) buffering from stressful events and adversities (Cohen & Wills, 1985; Lakey & Cohen, 2000). The former mechanism functions as a process whereby social interaction, networks, and relationships provide stability and security, and promote the recognition of self-worthiness over the life cycle of an individual. The buffering model is exercised when social support is available in response to the needs elicited by stressful events. In this case, the buffering role of social support is expected to mitigate the negative consequences of stressful events, such as loss of parents, thereby enhancing psychological and physical health.

The term *buffers* here implies causing a reduction in the effect of stressful events on orphans by providing support from different sources that enhances their emotional well-being and reduces mental distress. The positive association between social support and well-being in Cohen and Wills (1985) can be understood by perceived availability of interpersonal relationships that mitigates the stressful events caused by parental death. Therefore, the sources and functional dimensions of social support applied in this dissertation were based on the theory that distinct between the sources and functions of social support that is beneficial in improving the mental health of the subjects (e.g., Helgeson, 2002; House, 1981; Lakey & Cohen, 2000; Zhao et al., 2011).

The source of perceived social support (PSS) covered in this dissertation includes the community, other adults, peers and relatives; the types of functional social support covered emotional, informational instrumental, and companionship. According to House (1981), *emotional support* generally comes from family and close friends, and is the most commonly recognized form of psychosocial support. It includes empathy, concern, caring, love, trust, and appraisal. *Informational support* includes advice, suggestions, or directives that assist the person in responding to personal or situational demands. *Instrumental support* is a direct social support, encompassing help in the form of money, time, in-kind assistance, and other explicit interventions on the person's behalf. *Companionship support* usually comes from friends and peers.

3. Previous findings and knowledge gap

3.1 The psychosocial well-being of orphans in broader context

The psychosocial needs of children continue to be one of the most neglected areas of research in the context of African countries (Foster, 2000). Psychosocial needs are frequently overlooked because of the difficulty in recognizing psychological reactions (Foster, 2002). Many people lack an understanding of children's social needs, and psychological reactions may only become apparent months or years after parental death. Consequently, the link between stressful events and corresponding reactions can go unrecognized (Foster, 2002). Children may, one moment, demonstrate adult-type grieving behaviours such as weeping; the next moment, the same children may engage in seemingly normal behaviour, such as play (Makame, et al., 2002). This apparently contradictory behaviour is confusing to adults.

Thus, the importance of attending to the psychosocial needs of African orphaned children, especially those who are left without the protection and nurturance provided by family and community support, has become a subject of active research in recent years (Daniel & Matthias, 2012). Previous studies showed that orphans exhibit more severe symptoms of emotional, psychological, and physical problems than do non-orphans. These symptoms include depression (Ruiz-Casares et al., 2009), anxiety (Atwine et al., 2005) suicidal tendency (Makame et al., 2000) and post-traumatic stress (Cluver et al., 2007; Cluver & Gardner, 2006). Research conducted in Rwanda also indicated that orphans have a greater tendency towards symptoms related to Post Traumatic Stress Disorder (PTSD) (Bolton, 2001; Bolton et al., 2002; Dyregrov et al., 2000; Neugebauer et al., 2009; Schaal & Elbert, 2006). The review of existing literature reveals limitations and knowledge gaps in at least two very important areas. First, nearly all studies used only the psychological dimension to capture psychosocial well-being, thereby limiting the analysis. Second, in most studies orphans were treated as homogenous groups which neglected the significant differences that could occur *within* orphans in terms of psychosocial well-being. This study addressed these gaps by applying a broader definition of psychosocial well-being, including social dimensions. Furthermore, and most importantly, the dissertation considered orphans as heterogeneous groups and focused on understanding the factors sustaining these differences, such as living environments.

3.1. The living environments

The type and quality of care received has a significant impact on the development of an orphan (Biangana et al., 2005; Biemba et al., 2012). This section reviews the findings of some of the studies to provide an empirical context for the contribution of this dissertation. In a multi-country study, Whetten et al. (2009) compared the well-being of orphans living in community-based care, such as foster homes and orphanages, in Cambodia, India, Ethiopia, Kenya, and Tanzania. The result showed that orphans who were cared for in orphanages exhibited better emotional and cognitive functioning than children cared for in foster homes, by other extended family, or in community settings. A study by Schaal and Elbert (2006) provided evidence that Rwandan orphans in an orphanage had lower incidence of mental health problems than those in child-headed households in a comparison of PTSD symptoms.

Similarly, studies conducted among Chinese AIDS orphans showed that orphans living in orphanages and group homes reported higher levels of life satisfaction and perceived more improvements in their lives than children living in extended family/kinship-households (Zhao, Li, Fang et al., 2009; Zhao, Li, Kaljee et al., 2009). Similarly, Hong et al. (2011) compared traumatic symptoms, physical health, and schooling in orphanages, kinship care, and community-based group homes. Orphans in group homes reported the most affected in terms of traumatic symptoms, physical health, and schooling, followed by those in orphanages and then those in kinship care. In addition, Li (2010) compared orphan-care types in China for HIV/AIDS orphans. The study compared orphans living in community-based homes, orphanages, and foster homes (kinship-care) based on mental and emotional well-being, life-satisfaction, educational attainment, stigma and marginalization, and social support. The findings indicated clearly that orphans living in community-based home groups performed much better on all indicators, followed by those in orphanages and foster homes.

Conversely, studies that compared orphanages with foster homes or family-based care reported different outcomes. For instance, a study that compared the psychological and social adjustment problems of Ethiopian orphans reported that extended family-based care such as foster homes to be more favorable than orphanages for the well-being of orphans (Ejeta, 2005). Similarly, studies among Iraqi-Kurdish orphans in the Middle East reported that children living in orphanages suffered more from mental health problems, such as PTSD, than those placed in foster families (Ahmad et al., 2004; Ahmad & Mohammad, 1996). In a different setting, Hasanovic et al. (2006) compared the mental health statuses of orphaned children living in a government-run orphanage and another orphanage run by a non-

governmental organization (SOS village) in Bosnia and Herzegovina; PTSD was significantly more prevalent among the children living in the orphanage that was run by an NGO.

It is clear from the preceding review of the empirical literature that living environments have played a major role in the variation of psychosocial well-being, and therefore the need for orphans to be treated as heterogeneous groups. However, the findings from previous studies undertaken in Africa are conflicting. First, the reason lies partly in the limited comparisons made in these studies, where the focus often was on two types of living environments (e.g. orphanage versus foster homes or orphanage versus child-headed households) by excluding other existing types of living environments. This dissertation bridges this gap for the first time by including in the analysis four types of living environments that evolved and became prominent in the post-genocide Rwanda. The living environments that emerged over time also reflect the capacity of government and society to deal with an orphan crisis in a resource poor setting. The two most common living environments for orphans, such as orphanages and foster homes, eventually led to child-headed households and street children who, at an early age, took control of their own lives without adult supervision. Second, the dynamics of the living environments was analysed for the first time in terms of the mobility of orphans across living environments with emphasis on their perceived life satisfaction in their current living environment.

3.2. Stigma, marginalization and social support

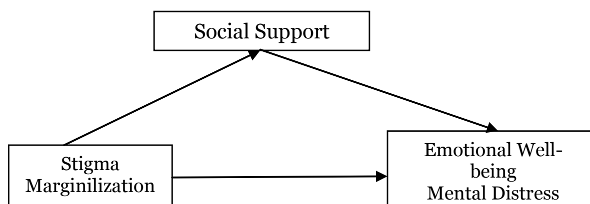
Empirical research has indicated that stigma and marginalization lead to major psychological problems, such as low self-esteem, depression, and mental distress on the victims (Bird et al., 2004; Hoggen, 2005; Roeloffs et al., 2003; Wright et al., 2000). Studies conducted in Africa mainly focused on the psychological effects of stigma on those children orphaned by AIDS (Deacon & Stephany, 2008). The main reason for this emphasis is the observation that people living with HIV/AIDS are often victims of severe stigma and marginalization, particularly in countries where the disease is widespread, or where public knowledge on the incidence, distribution, and spread of the disease is inadequate (Cluver et al., 2008; Makoae et al., 2008). The findings of these studies established that children orphaned by AIDS experience more stigma and discrimination by society than other groups of orphans or non-orphans; additionally, AIDS orphans have higher levels of mental distress, anxiety, and diminished psychosocial well-being

(Campbell et al., 2005; Cluver et al., 2008; Mudiappan et al., 2013; Zhao et al., 2010).

Researchers also emphasized that the environment in which orphans live (Bray, 2003; Deacon & Stephney, 2008) and the causes of parental death (Wild et al., 2005) are important factors for both stigma and marginalization and their associations with psychosocial well-being. Yet, in the literature, we lack knowledge on how stigma and marginalization are associated with the psychosocial well-being of those orphaned by causes other than AIDS. This study extends existing knowledge on stigma and marginalization by including in the analysis orphans with multiple causes of parental death, such as AIDS, genocide, and others, and the association with emotional well-being and mental distress.

Although some studies have shown the importance of social support in mitigating stigma and marginalization, the reverse relationships have not been adequately studied, particularly pertaining to those orphans who continually were losing social status due to increased stigma and marginalization. For instance, studies undertaken by Lee et al. (2002) in China and Varas-Dı´az et al. (2005) in Puerto Rico reported that stigmatizing attitudes and behaviours against adults living with HIV/AIDS have led to a decline in social support. Similarly, a study by Wang et al. (2012) found a strong mediating role of social support in a relationship between stigma and depression among children orphaned by AIDS in China. It is thus important to examine whether stigma and marginalization can reduce social support, which in turn leads to mental health problems. Therefore, this research tested, for the first time in Africa, whether stigma and marginalization were associated with emotional well-being and mental distress, both directly and indirectly, through reduced social support. The mediation model was adopted from Baron and Kennedy (1986). In Figure 2, it is hypothesized that stigma and marginalization affect emotional well-being and mental distress of orphans directly as well as indirectly through reduced social support.

Figure 2. Mediation model of stigma and marginalization



3.3. Sources and functions of social support

Parents and primary caregivers generally form a support system and play a critical role in children's development related to boosting self-esteem, spiritual growth, material well-being, and education (Bokhorst et al., 2010; Chitio et al., 2008; Decker, 2007; Pikko et al., 2013). The death of parents often leads to loss of social structure and social ties that are essential for child development and mental health (Cluver et al., 2009). The negative effect of lack of social support on mental health outcomes is well-documented (Pikko et al., 2013; Raffaelli et al., 2013; Wesley et al., 2013). In Africa, as elsewhere in the world, the communities as well as governments are quick to mobilize necessities, such as food, shelter, and amenities, in the wake of a major orphan crisis. However, key elements of psychosocial support are commonly overlooked, thus compromising the mental and emotional development of orphans, which is a crucial element to their future (Snider, 2005; Jackson & Warren, 2000). Most orphans remain exposed to psychosocial distress that, in the long term, will affect their functioning in society (Foster, 2002; Fox, 2001).

In Africa, relatives, kin, and communities are on the front line of psychosocial support networks available to orphaned children (Foster, 2002). Such social structures, however, are not sufficient in the face of major catastrophes such as witnessed in Rwanda. According to the OVC Report (MIGEPROF, 2006), the scale of the Rwandan genocide—which killed 1 million people in 90 days—placed an enormous burden on the government since the communities that would have cared for these children were decimated, displaced, or separated. Health and social infrastructures were disrupted, and basic safety net services, fundamental to the well-being

and development of children, were severely compromised. The socio-economic and psychosocial situation of children, and the families and communities they live in, still require tremendous support to ensure recovery from traumatic events and the survival, growth, well-being, and development of children. The HIV/AIDS pandemic was also another factor which further weakened the capacity of communities to provide care and support. The strengthening of the capacity of households and communities to care for these children becomes the key priority in this plan. This is also true of other countries affected by an orphan crisis, such as Kenya (Nyambedha et al., 2001) and Uganda (Oleke et al., 2005), where the ravages of HIV/AIDS dismantled social support structures.

The importance of distinguishing the relative roles of different sources and functions of perceived social support on the psychosocial well-being of orphans cannot be overemphasized. For instance, Hong et al. (2010) analysed the association between social support on psychosocial well-being of three groups: Chinese children orphaned by HIV/AIDS, children who were living with HIV/AIDS-infected parents (vulnerable children), and a comparison group (children not affected by HIV/AIDS). The authors reported that perceived social support, provided by friends and family members, was strongly correlated with symptoms of depression, loneliness, hopefulness, and anxiety. Furthermore, Zhao et al. (2011) examined the association between functional sources of perceived social support (informational/emotional, material/tangible, affectionate, and social interaction), sources (family/relatives, teachers, and friends), and their association with the psychosocial well-being of children affected by HIV/AIDS. They reported that a higher level of perceived social support was strongly associated with children's psychosocial well-being, and this association varied by functions and sources of social support.

In Africa, there were no studies that examined the associations between components of social support by source and functions with psychosocial well-being. The available studies, in most cases, relied on aggregate measures of social support constructed from sources. For instance, Cluver et al. (2009) studied traumatic symptoms among orphans in South Africa using an aggregate index of social support constructed from different sources (i.e., caregivers, school staff, and friends). They reported that orphans with high levels of perceived social support demonstrated significantly fewer PTSD symptoms than those with low perceived social support levels. A study conducted in Uganda by Kumakech et al. (2009) examined the impact of peer support on psychological distress based on an experiment among randomly selected orphans of 159 treatment and 169 control groups orphaned by HIV/AIDS. The study reported that that the treatment group participating in peer-group intervention support had a

significant reduction in mental health problems in comparison to the control group. A closely related study undertaken by Chitiyo et al. (2008) in Zambia assessed the impact of targeted social support provided by school teachers trained as patrons to children orphaned by AIDS. The intervention included emotional (counselling), social (participation in sport games), physical (financial support), and spiritual support from the patrons for about eight months. The result showed orphans who received emotional support experienced a significant improvement in school performance, reduction in mental distress, and other psychological problems, whereas physical and spiritual support did not play a role.

Building on these studies, this dissertation examines how perceived social support from the community, other adults, peers and relatives, and the functions of social support from emotional, instrumental, informational, and companionships were associated with orphans' psychosocial well-being.

3.4. Quality of care and socio-demographic factors

Research suggests the qualities of care, such as food availability and access to education, are important for the mental health and emotional well-being of orphans (Zimmerman, 2005). The role of nutrition in promoting emotional and mental well-being is well-studied in the literature (Danese et al., 2008; Rutter, 2010). For instance, Vozoris and Tarasuk (2003) examined the relationship between food insufficiency and physical, mental, and social health; they reported that malnourished children not only suffered from major depression and distress, but also had significantly higher risk of sickness. This dissertation therefore analysed the role food availability and access to education played in contributing to the psychosocial well-being of orphans. In addition, quality of care also was captured by the number of years spent in one living environment as an important indicator underlying quality of care. Spending long years in one type of living environment could have its own scarring effect on mental health, considering the high mobility observed among orphans in the sample and their preference for change of a living environment (Caserta et al, 2016a).

The dissertation also examined whether the variation in psychosocial well-being of orphans could be due to differences in socio-demographic background. Previous research has shown that emotional well-being is perceived differently as age increases (Lynchard & Radvansky, 2012). Staying away from school for any reason would not only hurt a child's future (Reynolds et al., 2001), but would also have negative psychological consequences. Early education is considered an important factor in reducing risky behaviour (Campbell et al., 2002). Region of residence could

play a role on psychosocial well-being of orphans as the path of the genocide varied significantly by geography; southern and eastern provinces were the most affected.

4. Aims of the study

The psychosocial well-being of orphans is influenced by several factors, including individual life circumstances (e.g., living environments, age, sex education, and quality of care) and external factors (e.g., communities, neighbours, relatives, government authorities). The dissertation focused to examine the interrelations between psychosocial well-being, living environments, quality of care, psychological vulnerabilities, and social support, based on a conceptual framework depicted in Figure 1. The dissertation is based on three peer-reviewed articles where psychosocial well-being is treated as a dependent variable explained by several independent variables, including living environments, stigma and marginalization, social support, and socio-demographic factors (e.g., age, sex, education, availability of meals, and region of residence, etc.). The psychosocial well-being of orphans in Rwanda was defined along the psychological and social dimensions. The psychological dimension of well-being deals with problems related with the emotional well-being and mental distress; and the social dimension of well-being deals with ability to interact with society and resilience when making difficult decisions, as well as propensity to engage in risky and dangerous activities.

The aim of this dissertation was threefold. The first sub-study of the dissertation (Article I) focused on the psychosocial well-being of orphans in four different living environments that have evolved in the Rwandan society. The motivation to compare the four living environments simultaneously is based on the plausible assumption that psychosocial problems are shaped as much by living conditions as by the tragic events that led to orphan-hood. While most studies so far have treated orphans as homogenous groups, and thus compared their psychosocial well-being with non-orphans, this study considered the possibility that difference among orphans' living environments after the death of parents could be an important source of variation in psychosocial well-being. Therefore, the first sub-study of this dissertation investigated whether the psychosocial well-being of orphans varied across types of living environments (e.g., child-headed households, orphanages, foster homes, and the street) after the loss of parents by denying or providing the environment conducive for a healthy child.

The dissertation focused in the second sub-study (Article II) on psychological vulnerability that could affect orphans' psychosocial well-being, such as stigma and marginalization. Three sub-research questions were examined: How does the cause of parental death (genocide, HIV/AIDS and other causes of death) associate with orphans' perceived stigma and marginalization? How do stigma and marginalization associate with orphans' psychosocial well-being? In addition, the study explored the mediating role of social support in mitigating the effects of perceived stigma and marginalization on emotional well-being and mental distress.

In the third sub-study (Article III), the dissertation investigated the role that social support played on psychosocial well-being of orphans in Rwanda. The relative importance of distinguishing between the sources and functions of social support remains important in terms of their roles in promoting psychosocial well-being of orphans. The sources of social support that were analyzed in this study were support from the community, other adults, peers and relatives; functions included emotional, instrumental, informational, and companionship support with different role to play in child development.

Figure 2. Psychosocial well-being, risk and vulnerability factors and buffers: a conceptual framework

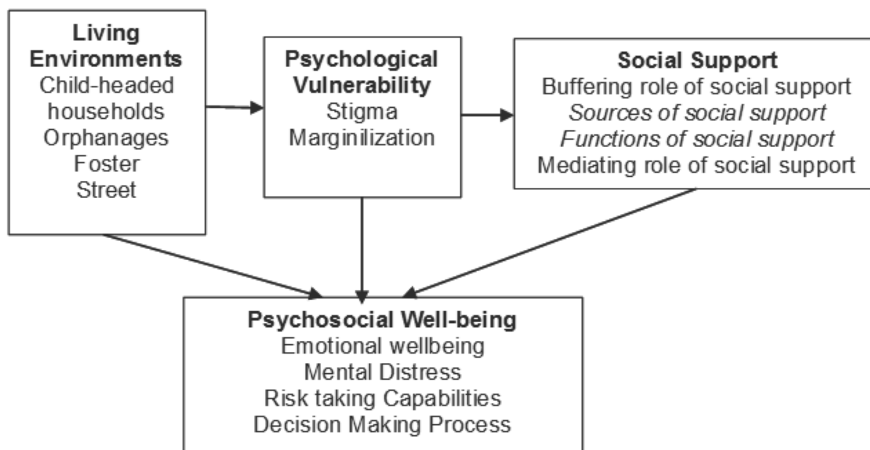


Figure 2 depicts that the psychosocial well-being of orphans differs across the various living environments, the psychological vulnerability the orphans encounter, and the type of social support they receive. In Figure 2, the relationships with psychosocial well-being, living environment, risk and vulnerability, and social support are interlinked and interdependent with one another.

5. Method

5.1. Respondents

This dissertation was based on survey data collected during the months of January - March 2009. The sampling frame was based on the total number of orphans living in the country, which was estimated by the National Statistical Institute of Rwanda to be approximately 850,000 in 2009. Since census data on the distribution of orphans living under different environments were not available, a sample size of 450 representatives of the national level was established from the estimated orphan population with a confidence level of 95% and 5% margin of error. Administrative information regarding the survey participants was obtained from governmental institutions, such as the Prime Minister's Office in charge of Family and Gender Promotion (MIGEPROF), and from NGOs, such as World Vision Rwanda, Care International, Red Cross Rwanda, and the Agency for Cooperation and Research in Development (ACCORD). These organizations worked closely with orphans by providing both material and psychosocial assistance in different regions of the country. The above listed organizations helped only in identifying the whereabouts of orphans living in the five regions of Rwanda, and hence were not involved in selection of survey participants. The selection process was performed by the principal researcher. Each participant was selected randomly from the large group identified by the help of the above mentioned organizations. In that way each participants had the same probability of being chosen at any stage during the survey administration.

Participants were 430 orphaned Rwandan children and youth aged between 10 and 25 years (Mean age= 17.74, SD=3.06), of whom 179 (41.6 %) were females and 251 (58.4 %) were males. Because of paucity of administrative data on the distribution of orphans living in various living environments and geographic regions in Rwanda, an equal-proportion method was used to allocate survey participants from the following living environments: 115 heads of households were drawn from child-headed households (67 female & 48 male), 81 orphans from the street (4 female & 77 male), 101 from orphanages (44 female & 57 male), and 123 orphans from foster homes (60 female and 63 male). Participants in the street children category were identified through social workers working in centres that provided basic services to these orphans. In addition, street children working as casual labourers had formed their own association, and were easily identifiable by the help of community leaders. In the case of foster children, the government had initiated a drive to adopt a child per family to cope with the overwhelming number of orphans after genocide. Many,

including relatives, neighbours, and others, complied in hopes that they would be compensated for their efforts (Dona et al., 2001).

A survey questionnaire was administered to generate data on a wide range of issues covering socio-demographic conditions, quality of care, living environments, psychosocial well-being measurement scales, stigma and marginalization, social support, and other independent variables used in this dissertation. Out of an initial sample of 450 orphans, 20 were dropped due to incomplete data for key variables; therefore, the sample size was reduced to 430, of which 10 more were dropped for missing data on the age variable. The distribution of the sample included double orphans 361 (84.3%) paternal orphans 16 (3.7%) and maternal orphans 51 (11. 8%). The sample was further classified into genocide orphans (n=202; 48%), HIV/AIDS (n=57; 13 %) and those who were orphaned by other causes such as malaria, accidents, and pneumonia (n=161; 39%). Few respondents, particularly younger ones could not recall cause of death of their parents and their response was categorized under "other causes". Furthermore, the dissertation also incorporated a wide range of age groups of orphans to capture the age-specific differences when analysing the psychosocial well-being of orphans following the 1994 Rwandan genocide and the AIDS epidemic. While the World Health Organization (2005) defines orphans as children and adolescents under 18 years of age, this dissertation included youth participants (19-25) who had lost their parents in the Rwandan genocide. Moreover, analysing the orphan phenomenon in different age groups was informative in understanding the differences in the levels of psychosocial well-being that may have been caused by the violence some of the children had witnessed during the genocide. Therefore, the study classified the age groups as orphaned children (10-15), adolescents (16-18), and youth (19-25). Birth certificates were unavailable to verify the ages of orphans, and it is conceivable that self-reported age could suffer from misreporting or other sources of bias such as simple ignorance. No attempt was made to correct for possible under-reporting of age, as it is highly plausible that the error is systematic across the sample and will have no effect on the results.

Finally, in order to increase geographic coverage, the dissertation also included participants from the capital city, Kigali districts (n=128; 29.7%), (Gazebo, Kicukiro, and Nyarugenge districts), and other provinces such as North (n=61; 14.2%), (Gicumbi, Musanze, and Robert districts), Southern province (n=148; 34.3%) (Muhanga, Rugarika, and Kamony districts), Eastern province (n=48; 11.1%) (Nyamata, Gakoni, Bugesera, and Gatsibo districts), and Western province (n=46; 1.07%) (Karongi and Rubavu districts).

5.2 Procedure and survey development

Ethical approval was granted by the National Ethics Committee of Rwanda, which follows the guidelines set by WHO. The dissertation followed guidelines that apply to the ethical issues surrounding the privacy and confidentiality of information obtained, and sensitivity to methods of data collections, such as interviews that respect basic human emotions and norms dictated by culture and faith of the subjects of the study. Participation was voluntary and written informed consent was obtained from the participants regardless of their age groups. For all participants, especially for younger ones, provision was made, such as explaining the meaning and application of the consent so that they understood the practical implications of signing a consent form. Furthermore, the right of voluntary participation, and the right to withdraw from the survey anytime was explained to all participants. In addition, adequate briefing was given on the objectives of the survey, the intended outcomes, and the importance of participation. It was discussed that the outcome of this study could impact the perspective of policy makers, the civil society, and legislators in understanding and solving the problems orphans face in their everyday lives.

The questionnaire was translated from English into the local language, Kinyarwanda, by a professional. The translation was rechecked for the sensitivity and appropriateness of questions, in a group discussion among experts from governmental and non-governmental organizations working with orphans, and a psychologist from the National University of Rwanda. The survey instruments were tested in a pilot study for validity and reliability before they was implemented. Most participants could read questions in the questionnaire and answer them on their own. However, as a matter of easing the survey administration to all participants and to ensure especially younger participants understood the subject matter in the questionnaire, the principal researcher identified local enumerators with help of National Statistics of Rwanda. As a result, thirteen enumerators were hired and trained to assist survey participants in completing their questionnaires properly. Some older participants didn't want to be helped and they managed to fill their questionnaire by themselves. The survey administration lasted on average 1 hour and 30 minutes.

As per the guidelines of the Rwandan Ethic Committee, at least one social worker had to be among participants to look out for their best interests, so that a researcher does not take any advantage of them, hence mitigating any violation of international ethics norms. Therefore, one social worker was present all the time to assist participants in case of any difficulty. In fact, a social worker reported incidents where participants were

crying during the interview. On some occasions, I noticed younger orphans weeping so emotionally, and when they were asked why, their responses were that they missed the care and nurturing they had while their parents were alive and questioning why this had happened to them. On other occasions, older orphans too experienced emotional break down during the interviews. The reason for their distress, most replied that it is too much for them to handle the kind of responsibility life imposed on them at a young age, taking care of themselves and their siblings. These groups of orphans, known as child-headed households, looked after their own siblings without any adult care and protection, and complained of the ill treatment they received from the community. This was exercised by grabbing the orphans' property, stealing their land or an ox or a cow, and sometimes accompanied by rape. During these occasions, the help of social workers in neutralizing, easing the problem at hand, and counseling the participants was very important. The main obstacle I encountered as a researcher was the language barrier between me, as the principal researcher, and participants. My communication with the survey participants relied entirely on the help of enumerators and social workers for understanding the situation. Finally, as a token of gratitude, refreshments, exercise books, pens, and pencils were given to survey participants for their kind participations.

5.3. Measures

Socio-demographic and orphan-related characteristics of participants were based on close-ended questionnaires that required participants to answer the following: (i) whether their status of being an orphan was single, paternal, or maternal, (ii) causes of parental death: genocide, HIV/AIDS and other causes of death, (iii) the type of living environment at the time of the survey (child-headed households, in the street, orphanages, and foster homes). In addition, the orphans were asked their age, gender, schooling, the number of meals available per day and the number of years spent in the same living environments.

The psychological measures were adopted from previous studies conducted in Africa, such as Family Health International psychosocial well-being survey, (Zambia/USAID, 2002; Thurman et al., 2006; Thurman et al., 2008; WHO, 1994), to ensure their conformity with the cultural context of the country and applicability to local conditions. The psychosocial well-being measures were comprised of emotional well-being, mental distress, risk taking behaviour, and decision-making capabilities. The emotional well-being, risk-taking and decision-making measures were adopted from Family Health International, Lusaka/USAID (2002). The dissertation

retained for all measures the Likert scales as adopted from their original sources.

Emotional Well-being. The 10-item scale assessed state of worry, frustration, anger, feelings of happiness, and hopefulness concerning the future. The participants were asked to respond on how often they had such feelings on a Likert scale, ranging from one (often) to three (never). Total score was constructed by adding all items in which a higher score represented a better level of emotional well-being. The Cronbach's alpha was 0.79.

Mental Distress. A 20-item scale was taken from a "Self-Reporting Questionnaire" (SRQ) by WHO (1994) to evaluate forms of mental distress such as anxiety, depression, and somatic symptoms on a Likert scale ranging from one (no) to two (yes). Total sum score was constructed by reversing individual items and summing them up so that the higher score represented a higher level of mental distress. The SRQ showed high reliability and validity when applied across diverse cultural and ethnic groups in Africa (see Parry, 1996 for a review of its application and implementation in Africa among adults and children; Mulatu (1995) in Ethiopia among children, and recently Stewart et al., 2013 in Malawi). The Cronbach's alpha was 0.85.

Risk-taking behaviour. The six-item scale of risk-taking behaviour asked whether participants were engaged in acts that could make them vulnerable to sexually transmitted diseases, used drugs or alcohol, or had other practices that reflected dangerous living. The Likert scale ranged between one (no) and two (yes) was used to rate participant's engagement in risky behaviour. Total sum score was constructed by summing up all items and reversed, so that the higher score represented higher levels of risky behaviour. The Cronbach's alpha was 0.65.

Decision making process. A six-item scale was used to assess orphans exposure to difficult situations that required making difficult decisions and choices in their daily lives. The questions varied from (1) never having to make difficult decisions to (3) being in full charge of their own lives. The Likert scale ranging between one (never) and three (often) was used to rate participants' engagement in decision-making processes. Total sum score was constructed by summing up all items, and then reversed so that the higher score implied that a better capacity to make decisions. The Cronbach's alpha was 0.61.

Psychological vulnerability (i.e., perceived stigma and marginalization). A six-item *perceived stigma* scale was taken from Thurman et al. (2008) to assess how orphans perceived stigma from the surrounding community on a Likert scale ranging from one (agree) to three (disagree). Total scores were constructed by summing up all items, and then

reversing scores so that a higher score implied a higher level of stigmatization. The Cronbach's alpha was 0.78.

Perceived marginalization. A six-item scale was taken from Thurman et al. (2006) to assess the perceptions orphans had of how they were treated by the community around them. A Likert scale ranged from one (strongly agree) to five (strongly disagree). Total scores were constructed by adding up all the items and reversing order, so that a higher value represented a higher level of marginalization. The Cronbach's alpha was 0.77.

Perceived social support. A 14-item social scale was taken from Thurman et al. (2006) to assess the social support orphans received if they needed help from relatives, the community, adults, and peers; a Likert scale ranged from one (agree) to three (disagree). Total index for social support was constructed by summing up all items and reversing order so that the higher value represented a higher level of perceived social support. Cronbach's alpha was 0.79. The subset of social support indices (i.e., support perceived from the community, other adults, peers and relatives) had Cronbach's alpha of 0.63 or above.

The *functional dimension of perceived social support* was comprised of emotional, informational, instrumental, and companionship support, and was based on Thurman et al.'s (2006) 14-item perceived social support scale. The four types of support were constructed using exploratory factor analysis on the latent variables embedded in their definitions, where the first four components with the highest factor loading (Eigen values >1) were considered. The loading of the 14 items of PSS passed a sampling adequacy test (the Kaiser-Meyer-Olkin measure was 0.8) and orthogonally of the items (the Bartlett's test of sphericity resulted in: $\chi^2=852$; $p<0.001$). Emotional support largely consisted of trust, comfort, advice, and guidance. Informational support included sharing of practical ideas and experiences, and instrumental support was comprised of items describing potential assistance, coping with practical problems, etc. Companionship support was based on items that related to socialization. The Cronbach's alpha values for emotional, informational, instrumental, and companionship support, respectively, were 0.63 or above.

Tracing the mobility of orphans between living environments. The mobility of orphans from previous living environments to the current ones was measured based on replies to the following questions: (a) "Where were you before you started living in your current environment?" (b) "How do you feel living in the current living environment?" and (c) "Where would you like to live given a chance?"

5.4. Statistical analysis

First, the descriptive statistics were carried out through i) the demographic and orphan-related characteristics ; ii) a Pearson's moment correlation was used to analyze the associations between the psychosocial wellbeing measures (emotional well-being, mental distress, risk taking behaviour, decision-making capabilities) and stigma, marginalization, and social support; iii) the mobility of orphans between living environments was analyzed by a transition matrix using simple frequencies. Second, a multivariate regression analysis was performed to examine the relationship between psychosocial well-being and the living environments. Third, hierarchical regression was performed to investigate the explanatory power of stigma and marginalization in the variation of psychosocial well-being of orphans, particularly emotional well-being and mental distress. In Model 1, the demographic and orphan-related characteristics were used as independent variables. Stigma and marginalization were added to the second model as additional explanatory variables. The mediating role of social support was estimated using the SPSS program by Hayes (2013) to investigate the hypodissertation that stigma and marginalization could influence psychosocial well-being, both directly and indirectly, through reduced social support. Finally, the sources and functions of social support were analysed using a hierarchical regression to examine which sources and functions of social support are highly beneficial to the psychosocial well-being of orphans. Data were analyzed using SPSS (version 18).

6. Result

Descriptive statistics.

The socio-demographic background of participants is presented in Table 1. The sample consisted of 58% adolescents and children, while 42% were youth. Male respondent made up 58% of the majority sample. The majority of orphans reported having only two meals (54%) a day. The distribution of orphans across the four living environments was, more or less, in equal proportion due to the sampling procedure adopted. Most children in the sample were orphaned due to genocide (48%). A significant proportion of orphans who lost their parents due to other causes (38%) reported such illnesses as malaria, pneumonia, suicide or accidents, to be the main causes of death. Most orphans in our sample were double orphans (84%), who had lost both of their parents.

Table 1

The Socio-*Demographic and orphan-related Characteristics of Orphans (N*=420*)*

Variables	N	%
Age		
10-15	111	26.4
16-18	133	31.7
19-25	176	41.9
Sex		
Male	251	58.4
Female	179	41.6
Have been to school		
Yes	401	93.5
No	28	6.5
Availability of meals		
One times a day	103	24.0
Two times a day	232	54.1
Three times a day	94	21.9
Living environments		
Child-headed households	122	28.3
Orphanage	102	23.7
Foster	123	28.5
Street	84	19.5
Status of orphans		
Paternal	16	3.7
Maternal	51	11.9
Double	361	84.3
Cause of parental death		
Genocide	202	48.0
HIV/AIDS	57	13.45
Others	161	38.51
Region of Residence		
Kigali	128	29.7
North	61	14.2
South	148	34.3
East	48	11.1
West	46	10.7

Note. Others' refer here to other causes of parental death (e.g. Malaria, pneumonia, suicide, accident etc.)

Correlations between the psychosocial measures, stigma, marginalization, and social support

The measures of psychosocial well-being (i.e., emotional well-being, mental distress, decision-making process, and risk-taking behaviour) were strongly correlated with each other (Table 2). Subjects with higher (i.e., better) levels of emotional well-being exhibited higher mental distress ($p<0.01$), were less frequently engaged in decision-making process ($p<0.01$) and low propensity to risk-taking behaviour ($p<0.01$) in terms of sexual activities and exposure to alcohol and drinks. Furthermore, there was strong association between some of the measures of psychosocial well-being, such as emotional well-being and mental distress, with stigma and marginalization ($p<0.01$) and social support ($p<0.01$), where subjects with higher emotional well-being reported less perceived stigma and marginalization and better social support. The opposite was true for mental distress.

Table 2.

Correlation between the Measures of Emotional Well-being, Mental Distress, Stigma, Marginalization and Social Support. (N= 420)

Measures	Emotional Wellbeing	Mental Distress	Decision making process	Risk taking behaviour	Social support	Margi nil-ization	Stigma
Emotional Well-being	1						
Mental Distress	-.63**	1					
Decision making process	-.36**	.46**	1				
Risk taking capability	-.22**	.30**	.27**	1			
Social support	.32**	-.19**	-.06	-.01	1		
Marginilization	-.40**	.48**	.13**	.15**	-.14**	1	
Stigma	-.56**	.57**	.24**	.21**	-.21**	.62**	1

Note ** Correlation is significant at the 0.01

The Mobility of orphans between the living environments

Table 3 provides information on the mobility of orphans between the living environments and their perceptions about their well-being in the current environments. Most orphans originally lived in foster homes or with neighbours or relatives (76%) before moving to their current living environments. In addition, only 20% of child headed households, 12% of street children, 18% of orphanages and 4% of foster homes remained in the same living environment where they had lived initially following the loss of their parents. There is significant variation in the degree of satisfaction perceived by orphans regarding their current living environments.

As shown in Table 3, close to 54% of the orphans felt life was either very good or good in the orphanages. On the other hand, 63% living in the street felt life for them was very bad a rating also given by child-headed households (35%) and foster homes (20%). Yet, when asked if they would stay in the same living environment given a chance, only 25% of those in orphanages said they would prefer to stay where they were, and the rest (75%) wanted to move to other living environments, mainly foster homes. The situation for foster homes was exactly the opposite, where most felt life was either fair or poor, but most (58%) still wanted to stay where they were living.

6.1. Predictors of psychosocial well-being: living environments and quality of care

One of the research questions in this study was to examine whether the psychosocial well-being of orphans was associated with the living environments and quality of care. As shown in Table 4, the results from a multivariate regression suggested that all dimensions of psychosocial well-being were associated strongly with living environments ($P<.01$). For instance, the regression analysis shows that being in an orphanage (B=1.75, $P<.01$) would improve emotional well-being by 19%, and reduce mental distress (B=-3.36, $P<.01$) and risk-taking behaviour (B=-.62, $P<.01$), by 31% and 21%, respectively, in comparison to child-headed households. Similarly, child-headed households had 30%, 20%, and 17% more capacity, respectively, to make difficult decisions in comparison to those in orphanages, on the street, and in foster homes. Risk-taking behaviour was mainly characteristic of child-headed households and those in the street.

Table 3

The Living Environments of Orphans; Origin, Current and Wished Future Status in Percentages (N=420)

Where were you living before joining the Current living environment					How do you feel living in a current living environment					Where would you want to live given a chance				
Orgin of L.E	CHH	Street	Orphan-age	Foster	L.E	Very good	Good	Satis-factory	Bad	L.E	CHH	Street	Orphan-age	Foster
CHH	20.00	5.00	9.00	8.00	CHH	0.85	13.56	50.85	34.75	CHH	40.71	0.00	17.70	41.59
Street	0.94	12.00	1.00	8.00	Street	1.22	7.32	28.05	63.41	Street	16.05	0.00	40.74	43.21
Orphanage	2.80	12.00	18.00	12.00	Orphanage	12.00	42.00	43.00	3.00	Orphanage	29.03	0.00	24.73	46.24
Foster	38.00	38.00	37.00	4.00	Foster	6.56	15.57	58.20	19.67	Foster	20.91	0.00	20.91	58.18
*Other	38.26	33.00	35.00	68.00										

* *Note*: L.E relates to the living environments, CHH relates to Child headed households, other relates to neighbours and relatives;

Table 4.
The association between the psychosocial wellbeing, the living environment and quality of care. (407)

	Psychosocial well-being											
	Emotional Well-being			Mental Distress			Risk-Taking Behaviour			Decision Making Process		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Age												
16-18	-1.07**	.45	-.13	1.30**	.60	.13	.28*	.16	.10	.34	.30	.07
19-25	-1.42***	.47	-.18	1.22**	.67	.13	.33**	.16	.13	.32	.31	.06
Sex												
Female	-.54	.37	-.07	1.43***	.47	.15	-.33**	.13	-.13	.05	.24	.01
Meal												
Twice a day	.85*	.45	.11	-.55	.58	-.06	.04	.15	.02	-.33	.29	-.07
Thrice a day	2.82**	.61	.30	-1.88**	.81	-.17	.07	.21	.02	-1.18***	.40	-.20
Has been to school	1.71**	.71	.11	-.27	.88	-.02	-.16	.24	-.03	.10	.47	.01
Living environment												
Street	-1.05*	.57	-.11	.88	.75	.07	.25	.20	.08	-1.23***	.38	-.20
Orphanage	1.75***	.61	.19	-3.36***	.79	-.31	-.62***	.21	-.21	-1.74***	.40	-.30
Foster home	.16	.49	.02	-.74	.64	-.07	-.43**	.17	-.16	-.89***	.33	-.17
Region of residence												
North	.29	.55	.03	.10	.70	.01	-.40**	.19	-.11	-.30	.36	-.04
South	.36	.44	.04	-.63	.58	-.66	-.08	.15	-.03	-.09	.30	-.02
East	-1.13*	.61	-.09	.38	.81	.02	-.37**	.21	-.09	-.11	.40	-.01
West	.71	.60	.66	-.00	.76	-.00	.13	.21	.03	-.57	.40	-.07
Time spent in current living environment	-.13***	.04	-.14	.98**	.05	.09	-.01	.01	-.00	.04	.26	.72
R^2		.28			.24			.14			.17	
Adjusted R^2		.26			.21			.11			.15	

***$p<.01$, **$p<.05$; *Note*: The reference groups for the variables are male for (sex), 10-15 (age), one meal per day for (availability of meals), child-headed households for (living environments), Kigali for (region) & has not been to school (schooling).

Quality of care and psychosocial well-being of orphans

With regard to quality of care, the *availability of three meals a day* was associated with a 30% higher level of emotional well-being compared to one meal a day (B=2.82, p<.05), as well as 17% lower level of mental distress (B= -1.88, p<.05). *Meal availability* had no effect on risk-taking behaviour, but reduced decision-making process by 20% (B=-1.18, p<.01). The *time spent in a particular living environment* was associated emotional well-being (B= -.13, p<.01) and mental distress (B= .98, p<.05) but there was no association between therisk-taking behaviour and difficult decision-making processes. For every year spent in one living environment, emotional well-being decreased by 14% , and mental distress increased by 10% .

Socio-demographic and orphan-related characteristics

From the result in Table 4, some of the demographic characteristics (e.g., age, sex and region of residence) had strong associations with the psychosocial well-being of orphans. *Adolescents* (B=-1.07, p<.05) and *youth* (B=-1.42, p<.05) reported 13% and 18% lower levels, respectively, of emotional well-being and 13% higher levels mental distress (B=1.30, p<.05; B=1.22, p<.05) as compared with younger orphans. The effect of *age* was statistically significant as to risk-taking behaviour, with older children engaging in 13% more risky activities (B=.33, p<.05). With regard to *sex,* female respondents exhibited 15% higher levels of mental distress (B=1.43, p<.01), and 13% lower levels of risky behaviour (B=-.33, p<.05), than did male orphans.

6.2. Perceived stigma, marginalization and the mediating role of social support

The psychological vulnerability experienced by orphans was analysed in terms of perceived stigma and marginalization. The research question examined whether or not there was significant difference in perceived stigma and marginalization across causes of parental death, the status of orphans, and the living environments. A significant difference was found only between living environments (p<0.01), while there was no significant difference in perceived stigma and marginalization along causes of parental death and status of orphans. Children in the street reported higher levels of perceived stigma and marginalization (p<0.01), followed by child-headed households and foster homes (p<0.01), (see Article II).

Further, the association between stigma and marginalization and emotional well-being and mental distress were analysed in Tables 5 and 6 in

a hierarchical regression model. The results show that stigma explained a significant variation in psychosocial well-being among orphans. In Table 5, Model 2, stigma was associated strongly with emotional well-being (B= -.36, P<0.01) and mental distress (B= .52, P<0.01). While the inclusion of stigma in Model 2 increased the R^2 by 43% for the variation in emotional well-being, for mental distress it increased by 69%. In the case of marginalization, shown in Table 6, Model 2, marginalization was very significantly associated with emotional well-being (B= -.34, P<0.01) and mental distress (B= -.52, P<0.01). The inclusion of marginalization in Model 2 increased the R^2 by 30% for the variation in emotional well-being, and for mental distress by 70%.

A closely related research question posed in the dissertation was whether stigma and marginalization were associated with causes of parental death and its influence on the emotional well-being and mental distress. The results suggest that orphans who lost their parents due to AIDS continued to exhibit higher mental distress (B= 1.95, P<0.01) even after controlling for stigma (Table 5). In addition, AIDs orphans continued to show lower levels of emotional well-being (B= -1.55; p<0.05) and higher level of mental distress (B=2.22, P<0.01) after controlling for marginalization (Table 6).

Table 5.
The Association of Stigma with Psychosocial Well-being (N =407)

	Emotional well being						Mental distress					
	Model 1			Model 2			Model 1			Model 2		
Variables	B	S.E	β	B	S.E	β	B	S.E	β	B	S.E	β
Age												
16-18	-.97**	.46	-.11	-.81**	.41	-.10	.76	.57	.07	.53	.50	.05
19-25	-1.49***	.48	-.19	-1.15***	.44	-.14	.98	.60	.10	.50	.53	.05
Sex												
Female	-.50	.37	-.06	-.11	.34	-.01	1.35***	.46	.14	.80**	.41	-08
Meal												
Two times a day	.93**	.45	.12	.57	.41	.07	-.78	.56	-.08	-.26	.50	-.03
Three times a day	2.89***	.61	.30	1.96***	.56	.21	-1.97**	.77	-.17	-.65	.68	-.06
Attending school	1.91***	.71	.12	1.63**	.65	.10	-.31	.89	-.02	.08	.78	.00
Status of orphans												
Double	-.37	.58	-.03	-.08	.53	-.01	.55	.73	.04	.13	.65	.01
Paternal	.80	1.03	.04	.78	.94	.04	-.73	1.30	-.03	-.70	1.14	-.03
Cause of parental death												
AIDs	-1.46**	.64	-.12	-1.01*	.58	-.08	2.58***	.80	.17	1.95***	.71	.13
Genocide	-.39	.37	-.05	-.27	.34	-.03	.50	.47	.05	.33	.41	.03
Living environment												
Child headed households	-.31	.50	-.04	.42	.46	.05	.53	.62	.05	-.51	.56	-.05
Street	-1.65**	.65	-.16	.37	.63	.04	2.27***	.82	.19	-.61	.77	-.05
Orphanage	1.19	.58	.13	1.16	.52	.13	-2.50***	.72	-.22	-2.45***	.63	-.22
Region of residence												
North	-.02	.57	.00	.40	.52	.04	-.24	.71	-.02	-.84	.63	-.06
South	-.02	.48	.00	.47	.44	.06	-.62	.61	-.06	-1.32**	.54	-.13
East	-1.22*	.65	-.09	-.75	.59	-.06	.41	.82	.03	-.25	.72	-.02
West	.34	.62	.03	.66	.57	.05	.27	.78	.02	-.19	.69	-.01
Years spent in the same living environment	-.13***	.04	-.14	-.09**	.04	-.11	.12**	.05	.12	.08*	.04	-07
Stigma				-.36***	.04	-.42				.52***	.05	.50
R^2 (Model 1 & 2))	.28			.40			.26			.44		
Change in R^2	.12***									.18***		

Note. ***p<.01, ** p<.05, P< .1; the reference groups for the control variables are 10-15 (age); male for (sex); one meal (availability of meals per day); has not been to school (schooling); single orphan (status of orphan); other causes of parental death (other); Foster children for (living environments) and Kigali for (region)

Table 6.
The Association of Marginalization with psychosocial Wellbeing (N = 407)

	Emotional wellbeing						Mental Distress					
	Model 1			Model 2			Model 1			Model 2		
Variables	B	S.E	β	B	S.E	β	B	S.E	β	B	S.E	β
Age												
16-18	-.96**	.46	-.11	-.97**	.43	-.11	.79	.57	.08	.83	.52	.08
19-25	-1.49***	.48	-.19	-1.59***	.46	-.20	1.06**	.61	.11	1.21**	.55	.13
Sex												
Female	-.44	.37	-.06	-.14	.35	-.02	1.33**	.46	.14	.87*	.42	.09
Meal												
Two times a day	.82*	.45	.10	.70	.43	.09	-.92	.56	-.10	-.75	.51	-.08
Three times a day	2.72***	.62	.28	2.27***	.59	.24	-2.10**	.78	-.18	-1.43*	.71	-.12
Attending school	1.94***	.72	.12	1.67**	.68	.11	-.19	.89	-.01	.23	.81	.01
Status of orphan												
Double	-.18	.59	-.02	-.03	.56	.00	.29	.74	.02	.04	.67	-.00
Paternal	1.06	1.04	.05	.98	.99	.05	-.75	1.30	-.03	-.62	1.18	-.02
Causes of parental death												
AIDs	-1.45**	.65	-.11	-1.55**	.62	-.12	2.08**	.81	.14	2.22***	.74	.15
Genocide	-.45	.37	-.06	-.43	.35	-.06	.58	.47	.06	.54	.43	.06
Living environment												
Child headed households	-.29	.50	-.03	-.02	.48	.00	.60	.62	.06	.18	.57	.02
Street	-1.75***	.66	-.17	-1.06	.63	-.11	2.14**	.82	.18	1.07	.76	.09
Orphanage	1.26**	.58	.14	1.03*	.55	.11	-2.34***	.73	-.21	-1.96	.66	-.18
Region of residence												
North	.07	.57	.01	.56	.55	.05	-.13	.72	-.01	-.88	.66	-.07
South	.02	.49	.00	.17	.46	.02	-.34	.61	-.03	-.58	.56	-.06
East	-1.23*	.65	-.09	-1.16*	.62	-.09	.56	.82	.04	.43	.75	.03
West	.48	.63	.04	.89	.60	.07	.35	.78	.02	-.29	.72	-.02
Years spent in the same living environment	-.11***	.04	-.13	-.10***	.04	-.12	.10**	.05	.10	.09**	.05	.08
Marginalization				-.34***	.05	-.30				-.52***	.06	-.39
R^2 (Model 1 & 2)	.26			.34			.20			.34		
Change in R^2	.08***						.14***					

Note. ***p<.01, ** p<.05, P< .1; the reference groups for the control variables are 10-15 (age); male for (sex); one meal (availability of meals per day); has not been to school (schooling); single orphan (status of orphan); other causes of parental death (other); Foster children for (living environments) and Kigali for (region)

The mediation role of social support

The study also sought to examine whether stigma and marginalization could be associated with emotional well-being and mental distress through reduced social support. As expected, the results of the mediation analysis, shown in Table 7 and Table 8, showed that social support mediated the relationships between stigma, marginalization and psychosocial well-being, as indicated by emotional well-being and mental distress. The role of social support in mediating the effect of stigma on emotional well-being was 9% (p<0.01), and 10% (p<0.01) for marginalization (Table 7). There was no significant mediation role of social support on mental distress, either directly or indirectly, once stigma and marginalization were accounted for.

Table 7
The Indirect Effects of Social Support on Stigma, marginalization and Psychosocial Wellbeing (N = 388)

Variables	Indirect Effect		96% CI	
	Coefficient	% I.E	Lower	Upper
Stigma → SS → Emotional wellbeing	-.04***	9	-.06	-.01
Marginalization → SS → Emotional wellbeing	-.02***	10	-.04	-.00
Stigma → SS → Mental distress	.00	<1	-.02	.03
Marginalization → SS → Mental Distress	.01	<1	-.01	.04

Note. ***p<.01; SS represents social support; CI, Confidence Interval and I.E, Indirect effects

As indicated in Table 8, emotional wellbeing was negatively significantly associated with stigma (B=-34; p<0.01) and marginalization (B=-0.20; p<0.01) and also, mental distress was associated positively with stigma (B=0.54; p<0.01) and marginalization (B=0.52; p<0.1). Social support continued to have strong associations with emotional well-being (B=18; p<0.01; B=.09; p<0.05) even after controlling for stigma and marginalization. In addition, the role of living environments on emotional well-being and mental distress diminished significantly once stigma, marginalization, and social support were controlled for. Only street children exhibited lower level of mental distress after controlling for stigma (B=-1.93; p<0.01) and marginalization (B=-2.1; p<0.01).

Table 8

The Mediation Role of Social Support on Stigma, Marginalization and Psychosocial Wellbeing (N =407)

	Stigma				Marginalization			
	Emotional Wellbeing		Mental Distress		Emotional Wellbeing		Mental Distress	
Variable	B	SE	B	SE	B	SE	B	SE
Social Support	.18***	.05	-.02	.06	.09**	.04	-.05	.06
Stigma/Marginalization	-.34***	.05	.54***	.05	-.20***	.04	.52***	.06
Age								
16-18	-.68	.42	.41	.52	-.10***	.37	.63	.54
19-25	-.95**	.44	.50	.54	-1.30***	.38	1.15**	.57
Sex								
Female	-.33	.37	.84**	.42	-.09	.36	.96**	.44
Attending Schooling	1.71***	.78	.10	.83	1.24***	.56	-.06	.85
Status of orphans								
Paternal	.70	.96	-.85	1.2	1.63	1.23	-.85	1.23
Double	.11	.53	.02	.70	.55	.63	-.02	.69
Cause of parental death								
Genocide	-.26	.34	.33	.42	-.14	.36	.57	.44
HIV/AIDS	-.50	.60	1.66**	.73	-.44	.49	2.02**	.78
Living Environment								
Child headed households	.13	.59	.33	.73	-.12	.50	.57	.44
Street	.81	.57	-1.93***	.70	.79	.50	-2.1***	0.74
Orphanage	-.14	.47	.36	.58	.18	.40	-.27	.60
Region of residence								
North	.22	.59	-.95	.64	.07	.46	-1.00	.68
South	.41	.45	-1.26**	.54	.08	.39	-.61	.57
East	-.96	.60	-0.31	.74	-.81	.53	.27	.78
West	.75	.58	-.46	.72	.96	.51	-.74	.76
No of years spent in same living environment	-.08**	.04	.08	.05	-.05	.03	.09	.05
R^2	.45		.43		.46		.36	
Indirect effect	-.03**	.01	-.004	.01	.02***	.008	-.01	.01
% of indirect effect	10.30		-2.00		9.6		-2.00	

Note. ***p<.01, ** p<.05; the reference groups for the control variables are 10-15 (age); male for (sex); one meal (availability of meals per day); has not been to school (schooling);

6.3. Perceived sources and functions of social support

The study investigated the research question that social support buffers the stressful events that was caused by parental death. Two aspects of social support were examined: the sources of social support and their functions. As reported in Table 9, Model 2 of the hierarchical regression shows that the sources of PSS from communities (B=.21, $p<0.05$), other adults (B = .23, $p<0.05$) and from relatives (B=.37, $p<0.01$), each contributed to higher levels of emotional well-being. Accordingly, as could be inferred from the standardized coefficients, a one SD increase in PSS from the community other adults and relatives, could lead to 11%, 11%, and 17% increases, respectively, in emotional well-being. Support received from peers had no significant effect on the level of emotional well-being. Furthermore, the inclusion of *sources of PSS* increased the R^2 in Model 2 by 27% of the variation in emotional well-being ($p<0.01$). In the case of mental distress, PSS from adults (B = -.36, $p<.05$) was the only statistically significant source of PSS associated with lower levels of mental distress. A one SD increase in PSS from adults led to a 15% reduction in mental distress. The inclusion of the sources of PSS increased the R^2 in Model 2 by 11% for the variation in mental distress ($p<0.05$).

Regarding functional sources of social support, in Table 10, Model 2 shows that emotional support (B =.24, $p<0.05$) and companionship support (B=0.33; $p<0.05$) contributed significantly to higher levels of emotional well-being. A one SD improvement in emotional support and companionship support would increase the levels of emotional well-being, respectively, by 16% and 12%. The informational and instrumental dimensions of perceived social support were not significantly associated with emotional well-being. The inclusion of functional dimensions of perceived social support increased the R^2 in Model 2 by 31% of the variation in emotional well-being. With regard to mental distress, emotional support (B=-0.27; $p<0, 05$) and companionship support (B=-0.48; $p<0.05$) were the only statistically significant sources of functional support associated with mental distress. A one SD increase in the level of emotional support and companionship support led to a decrease in the levels of mental distress by 15% and 14%, respectively. Similarly, the inclusion of *functional dimensions of* perceived social support increased the R^2 in Model 2 by 17% for the variation in mental distress.

Table 9.

The Association between Sources of perceived Social Support and psychosocial Well-being (Hierarchical Regression) N=360

	Emotional Well-being						Mental Distress					
	Model 1			Model 2			Model 1			Model 2		
Variable	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Age												
(16-18)	-.90*	.47	-0.1	-.6	.45	-.07	1.11	.62	.11	.99	.62	.10
(19-25)	-1.36***	.48	-.17	-.94**	.47	-.12	1.27**	.64	.13	1.18	.64	.13
Sex												
Female	-0.6	.37	-.08	-.90**	.36	-.11	1.36***	.49	.15	1.43***	.49	.15
Meals												
Two times a day	.77	.46	.1	.51	.44	.07	-.32	.60	-.03	-.14	.60	-.02
Tree times a day	2.78**	.63	.29	2.14***	.61	.22	-1.52	.85	-.13	-.89	.86	-.08
Status of orphan												
Double	-.35	.58	-.03	-.07	.56	-.01	.43	.80	.03	.26	.80	.02
Paternal	.9	1.04	.04	.87	.1	.04	-1.05	1.37	-.04	-1.07	1.36	-.04
Attending school	1.90***	.74	.12	1.67**	.71	0.1	-.38	.93	-.02	-.25	.92	-.01
Living environment												
Child-headed households	-.31	.51	-.04	-.51	.49	-.06	.77	.67	.08	1.03	.67	.10
Street	-1.67**	.66	-.17	-1.48**	.63	-.15	1.97**	.87	.16	1.76**	.87	.15
Orphange	1.37**	.59	.15	.99	.57	.11	-2.47***	.77	-.23	-2.11***	.77	-.19
Region of rescidence												
North	.18	.56	.02	-.09	.54	-.01	.03	.72	.00	.32	.72	.03
South	.33	.46	.04	.17	.44	.02	-.67	.61	-.70	-.43	.61	-.04
East	-.78	.65	-.06	-1.38	.62	-.11	.20	.87	.01	.60	.87	.04
West	.96	.63	.07	.83	0.6	.06	-.34	.82	-.02	-.14	.81	-.01
Years spent in the same L.E	-.13**	.04	-.15	-.13***	.04	-.15	.11**	.05	.11	.10	.05	.09
Sources of social support												
Community				.21**	.09	.11				.10	.13	.042
Other Adult				.23**	.10	.11				-.36**	.14	-.15
Peer				.15	.15	.04				-.24	.21	-.06
Relative				.37***	.10	.17				-.13	.14	-.05
Change in R	.07***									.02***		
Adjusted R (Model 1)	.26									.19		
Adjusted R (Model 2)	.33									.21		

Notes; ***p<.01, ** p<.05; The reference groups for the control variables are 10-15 (age); male (sex); one meal per day (availability of meals); has not been to school (school); single orphan (status of orphan); child-headed households (living environments); Kigali (region)

Table 10

The Association between Functional Perceived Social Support and Psychosocial Well-being (Hierarchical Regression) N=360

	Emotional wellbeing						Mental Distress					
	Model 1			Model 2			Model 1			Model 2		
Variables	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Age												
(16-18)	-.95**	.46	-.11	-.67	.44	-.08	1.22**	.63	.12	1.10	.62	.11
(19-25)	-1.36***	.48	-.17	-.89	.47	-.11	1.26**	.64	.13	1.10	.64	.12
Sex												
Female	-.57	.37	-.07	-.81**	.36	-.10	1.30***	.5	.14	1.29***	.49	.14
Meals												
Two times a day	.85	.45	.11	.58	.43	.07	-0.49	.6	-.05	-.31	.59	-.03
Three times a day	2.85***	.62	.30	2.17***	.61	.23	-1.67**	.85	-.14	-1.01	.86	-.09
Status of orphan												
double	-.36	.58	-.03	-.01	.56	.00	0.45	.81	.03	.22	.8	.02
paternal	.90	1.04	.04	.74	.99	.03	-1.05	1.38	-.04	-.92	1.36	-.04
Attending school	1.89**	.74	.12	1.56**	.71	.10	-0.36	.94	-.02	-.12	.93	-.01
Living Environment												
Child-headed households	-.23	.51	-.03	-.51	.48	-.06	.61	.67	.06	.91	.66	.9
Street	-1.54**	.65	-.15	-1.29**	.62	-.13	1.69**	.87	.14	1.41	.86	.12
Orphanage	1.44**	.59	.15	1.10**	.56	.12	-2.64***	.77	-.24	-2.39***	.76	-.22
Region of Residence												
North	.16	.56	.01	-.18	.54	-.02	.08	.73	.01	.41	.72	.03
South	.34	.46	.04	.20	.44	.02	-.69	.62	-.07	-.49	.61	-.05
East	-.82	.65	-.06	-1.44**	.62	-.11	.30	.87	.02	.76	.87	.05
West	.81	.62	.06	.57	.60	.04	-.03	.81	.00	.23	.80	.02
Years spent in the same L.E	-.13***	.04	-.14	-.12***	.04	-.13	.10**	.05	.09	.09	.05	.09
Functional social support												
Emotional				.24**	.09	.16				-.27**	.12	-.15
Informational				.14	.12	.06				.24	.16	.09
Companionship				.33**	.14	.12				-.48**	.20	-.14
Instrumental				.28	.15	.10				-.00	.21	.00
Change in R	.08***									.03***		
Adjusted R(Model 1)	.26									.18		
Adjusted R(Model 2)	.34									.21		

Notes: ***p<.01, ** p<.05 ; The reference groups for the control variables are 10-15 (age); male (sex); one meal per day (availability of meals); has not been to school (school); single orphan (status of orphan); child-headed households (living environments); Kigali (region).

7. Discussions

The main objectives of this dissertation were to examine the psychosocial well-being of orphans in various living environments, to determine the psychological vulnerabilities they faced in terms of stigma and marginalization, and to identify the sources and functions of perceived social support in buffering stressful situations. Among the predictors, emphasis was given to the role living environments and quality of care played in shaping psychosocial outcomes, a subject not well-researched in the empirical literature (Article I). The dissertation also examined the consequences of psychological vulnerability factors such as stigma and marginalization on emotional well-being and mental distress in its second sub-study (Article II). Further, detailed investigation was made on how perceived stigma and marginalization could degrade social support, which, in turn, would influence psychological outcomes. The third sub-study (Article III) explored whether social support through the sources and functions of support served as an effective buffer against stressful events for orphans following parental deaths. The association between perceived social support from communities, other adults, peers, and relatives with emotional well-being and mental distress was examined extensively. Functional support included informational, emotional, instrumental, and companionship support needed for effective buffering of orphans' stressful situations.

7.1. The living environment and quality of care

Following the death of parents, a living environment available to an orphan is expected to meet basic requirements (e.g., stability, security, and protection) as well as to convey to the orphan a sense of belongingness to a close-knit family. It is in this context that the findings in this dissertation should be interpreted. The first research question of this study was to analyze the association between the living environments of orphan and their psychosocial wellbeing. The findings of this study indicated there is a significant difference in psychosocial well-being of orphans among the four living environments (i.e., orphanage, foster home, child-headed households, and the street). The fact that only those in orphanages reported higher levels of emotional well-being and lower levels of mental distress as compared to those in other living environments is worrisome, though consistent with previous studies (Schaal & Elbert, 2006; Whetten et al., 2009; Wolff &

Fesseha, 1998; 2005). For instance, Schaal & Elbert (2006) and Zimmerman (2005) reported in their studies that adult supervision may have instilled some sense of protection that might explain why those in orphanages felt better protected and cared for. In contrast those in child-headed households reported low level of emotional well-being and high level of mental distress. This is also consistent with previous study by Thurman et al.(2006) where child headed household complained about neglect and abuse from the community with whom they interacted. Living without adult support and care exposing these households to abuse and exploitation were also reported by Daniel & Mathias (2012). In the open-ended interview conducted with these households, most complained about frequent abuses from the community that included incidences of theft and rape. These households have learnt to take responsibility at early age and are regarded as maturing adults by the society which denies them the love and protection they should have been accorded. The lives of those in the street are not far different from that of child headed households where poverty, lack of guidance and protection from the society is missing. The fact that those under the care of foster homes reported lower levels of emotional well-being and higher levels of mental distress is a cause for concern, given that international organizations such as UNICEF (2003, 2004) advocate in favour of orphans placed under foster care. One of the reasons why those in foster homes did not do well in terms of psychosocial well-being could be explained by the fact that most fostering adults lack information on the emotional support these children need and, as a result, left many orphans angry and depressed (e.g., Sengando & Nambi, 1997). It could also be explained by the fact that adoptive families may have problems of their own that may have led to the exploitation and abuse of these children (Evans, 2005).

Quality of care and socio-demographic characteristics

Another predictor of psychosocial well-being analyzed in this dissertation was the role that quality of care played on psychosocial well-being of orphans. The study captured quality of care in terms of the number of meals available to orphans, status of schooling, and the number of years an orphan stayed in a particular living environment. The findings showed that the longer orphans stayed in a particular living environment, the lower their levels of emotional well-being and the higher their levels of mental distress. For instance, among those in orphanages, more than 50% felt either good or very good about their current living conditions. Yet, only a small proportion (24%) would prefer to stay in orphanages, and most wanted to live in foster homes. Similar conflicting emotions between staying and leaving were

observed among those in foster homes and child-headed households. The exceptions were street children who lived in extremely bad conditions, and thus a majority (82%) preferred a change of living environment. Other aspects of quality of care for orphans, such as food availability and schooling, played a significant role in influencing psychosocial well-being. Poverty—particularly malnutrition—has been documented in previous studies as a major factor affecting mental health and cognitive abilities (Panpanich et al., 1999; Vozoris & Tarasuk, 2003). Severe child hunger is also documented to be associated with higher levels of internalizing behaviour problems among both pre-schoolers and school-aged children (Weinreb et al., 2002). Further, the findings showed that food availability alleviated worry about everyday decision-making, but played no role in risk-taking behaviour. In the sample, risky behaviour was pronounced in environments with little adult supervision (i.e., street children and those in child-headed households).

The independent role of socio-demographic and orphan related characteristics indicated that adolescents (16–18 years old), youth (19–25 years old), and females exhibited lower levels of emotional well-being and higher levels of mental distress compared to the younger orphans (10-15 years old) and boys. Likewise, previous studies showed that emotional well-being is felt differently as age increases (Lynchard & Radvansky, 2012; Schaal & Elbert 2006). Psychosocial problems were also reported to affect females more than males. This is in line with previous findings that internalizing problems were higher among females in Tanzania (Makame et al., 2002), and in Rwanda, PTSD symptoms were higher among females (Neugebauer et al., 2009). Studies based on focus group discussion in Rwanda among youth-headed households indicated that female orphans often found themselves objects of sexual abuse, exploitation and harassments elevating their anxiety levels and mental distress (Brown et al., 2005). In addition, the findings revealed that the older the orphan is, the better is his or her capacity to make decisions, but also the higher is the degree of risk-taking behaviour. Female respondents tended to be less involved in risky behaviour than males. Region of residence was also associated with some of psychosocial well-being measures. Orphans residing in regions in the south where the genocide took place on a massive scale, compared to the capital, suffered high levels of mental distress, which in part could explain the persistence of the trauma of the mass killings fifteen years after the event. Previous studies have documented a higher prevalence of PTSD in the Southern province of Rwanda, where the genocide occurred on a much larger scale (Munyandamusta et al., 2012).

Mobility of orphans from one living environment to the other

The study also analyzed the mobility of orphans from one living environment to another in search of stability, security, and protection. The finding that there was high mobility from one living environment to another was also suggestive of growing dissatisfaction on the part of orphans. For instance, close to 76% of orphaned children currently living in orphanages, child-headed households, and on the street originated from foster homes, close relatives, and others. Notably, approximately 70% of orphans currently cared for in foster homes originated from relatives or neighbours, and very few came from other living environments. The fact that orphans in this sample moved from one living environment to the other may explain the dissatisfaction they experienced in their searches for stability, protection, care, and love. It is also possible that the moves were imposed on them due to difficult circumstances they had encountered in previous living environments (e.g., hardships, abuses). This finding is also in line with those of Young & Ansell (2003) and Ansell & Young (2004), which found that AIDS orphans in Malawi and Lesotho often had to move to new homes and communities in search of a better care environments; some of the orphans they studied had experienced as many as five moves.

7.2. Stigma, marginalization and mediation role of social support

One of the research questions examined in this study was whether the degree of social exclusion in the form of stigma and marginalization of orphans was linked to the causes of parental death. All orphans who had lost their parents due to genocide, AIDS, and other causes did perceive the same level of stigma and marginalization from society. This is at variance with the literature that associated stigma and marginalization with AIDS orphans in the context of Africa (e.g., Cluver et al., 2008; Deacon & Stephaney, 2008). Also, unlike the findings in this dissertation, Thurman et al (2008) found perceived marginalization to be highly correlated with genocide and AIDS orphans among youth-headed households. The variance in the results with Thurman et al. (2008) could be explained partly by the difference in sample composition, where living environments played a significant role in perceived stigma and marginalization in this study.

Secondly, would stigma and marginalization be associated with emotional well-being and mental distress? Would the living environments continue to be significant factors in predicting psychosocial well-being once stigma and marginalization were accounted for? The findings established

that stigma and marginalization were associated strongly with low levels of emotional well-being and high levels of mental distress, consistent with previous research (e.g., Daniel, 2005; Cluver et al., 2008; Nyamukapa et al., 2008; Wang et al., 2012). However, a significantly different finding reported in this dissertation was that AIDS orphans continued to show higher levels of mental distress than those who had lost their parents due to genocide or other causes, even after controlling for stigma, marginalization, and social support. One reason could be that children orphaned by AIDS may fear they also carry the virus, which could be a source of anxiety and heightened level of mental distress.

Third, in a situation of existing stigma and marginalization, is it possible for social support also to be degraded? As expected, stigma and marginalization led to low levels of perceived social support, which is in line with the findings of studies by Wang et al. (2012), Thurman et al. (2008), Lee et al. (2002), and Varas-Dı´az et al. (2005). The results from the mediation analysis highlighted that social support was reduced due to stigma and marginalization, which in turn led to lower levels of emotional well-being of orphans. The result was expected, as stigma is the converse of social support in most cases, as conceptualized by Link and Phelan (2001); in the end, stigma leads to marginalization, discrimination, and isolation. This is a unique contribution to the literature, as there was no previous study that quantitatively established the pathways through which stigma, marginalization, and social support are intertwined to drive the levels of emotional well-being and mental distress of orphans in Africa. In addition, the importance of living environments, particularly that of orphanages ceased to be important once stigma, marginalization and social support were accounted for. This brings out an important dimension in the roles of living environments, over and above the quality of care attached to them, in influencing psychosocial well-being of orphans. Severe stigma and marginalization as perceived particularly by child-headed households and street children remains to be an important factor in driving differences in psychosocial well-being between orphans.

7.3. Sources and functions of social support as a buffer for stressful events

One of the consequences of the death of parents would be to deny surviving children the social and family networks established and nurtured by parents while they were alive. In a situation where the loss of parents occurred through violent and mass killings, remnants of any social support systems may be diminished substantially. The main objective of (Article III) was to

analyse the different sources and functions of perceived social support available to orphans and identify which types of support would be most beneficial to emotional well-being and would reduce mental distress. Accordingly, sources and functions of perceived social support had varying degrees of association with psychosocial well-being of orphans, some more than others. Perceived social support from relatives, the community, and other adults were associated with higher levels of emotional well-being, whereas perceived social support from peers was not significant. With regard to mental distress, perceived social support from adults was the only significant support associated with a low level of mental distress, whereas support from all other sources had no effect. This result is consistent with the findings of Zhao et al. (2011), who found that perceived social support from family and other relatives was significantly correlated with emotional support. Adult support played a unique role in the daily lives of orphans, perhaps because it was closer to parental care than support from peers and members of the community. The finding highlighted the importance of distinguishing between sources and functional social support, rather than the aggregated social support from all sources that is often used in many studies (Cluver et al., 2009; Kumakachi, et al., 2009).

The functional dimensions of perceived social support further provided an important insight by identifying emotional support and companion support as two of the most important factors contributing to higher levels of emotional well-being and lowering mental distress among orphans. Further, this study indicated that emotional support was strongly correlated with support from adults, informational support was correlated with community support, and companionship support was correlated with peer support. This finding is in line with the previous study by Zhao et al. (2011), who reported strong correlations between support from peers and informational support, support from families correlated with instrumental support, and support from peers correlated with companionship support.

7.4. Limitations and practical implications

The lack of census data on orphan-hood in Rwanda and in most African countries poses serious limitations on understanding orphan characteristics and diagnosing the underlying psychological and social problems. Available surveys are extremely limited in their coverage and do not report orphans of different status, cause of parental death such as genocide, HIV/AIDS orphans and other types of orphans. Similarly, no official statistics exist that report the numbers of children living with HIV virus.

The reliability scores of some of the measures used in this dissertation were low, yet statistically acceptable. The problem lies on the lack of

standardized measures of psychosocial well-being. Measurement of psychological well-being of children or orphans in sub-Saharan Africa is also an area that should be further strengthened and refined. The measurement for the wellbeing of orphans heavily depended on indicators designed for Western societies that recognized right of a child in their legislations .There is almost an absence of standardized measures of child wellbeing indicators that capture the cultural, historical, psychological, legal context of African countries. Therefore, the lack of such a standardized measurement of wellbeing has hindered in examining the precise experience orphans undergo after losing their parents. This gap has also hampered comparative research across countries using a consistent and coherent method applicable in most African cultures.

The data used in this dissertation was cross-sectional, which creates limitations on making inferences on causal relationships. The current research is based on cross-sectional designs, limiting the analysis to associations and correlations. Longitudinal studies are required to assess and establish causal relationships between living circumstances, society's actions, and psychosocial wellbeing. There is therefore a need to design and conduct longitudinal cohort studies that collect information on various orphan care systems, protection and risk factors and provide a continuous set of reliable evidence for improving the scale and effectiveness of social policies. Finally, a lack of administrative data on the distribution of the population of orphans restricted the selection of samples in a truly random fashion. Because of such limitations, the process of identifying sample participants did not follow strictly the statistical procedures one would expect in drawing a nationally representative sample.

In this dissertation, it has been documented that orphans moved frequently between living environments and exhibited conflicting attitudes towards a particular living environment showing dissatisfaction of one type or another. Follow up research is needed to understand the underlying reasons why children keep moving from one living environment to another so that appropriate measures could be taken to make a living environment conducive to their long term psychosocial wellbeing.

The social support model used in this study focused only on the sources and functional sources of social support, future research can benefit by combining this model with instruments that measures the quantity of social support received to make better inferences

7.5. Conclusions and suggestions for further studies

The main contributions of this dissertation stem from the new insights and original findings reported in the three Articles regarding the psychosocial well-being of orphans in Rwanda, a country hit by unprecedented ethnic genocide in recent history. The first insight obtained from this dissertation was the finding that orphans were heterogeneous groups that differed from one another, not only by socio-demographic background, but also by the nature of a livelihood they lived and the quality of care they received in their living environments. In this context, the fact that—for instance—children who lived in orphanages had the highest level of emotional well-being and lowest levels of mental distress was interesting, but also could be a subject of further research because those children performed better even after quality of care had been controlled for. Relatedly, children in orphanages performed better in their overall psychosocial well-being as compared to other orphans; they also indicated strong desires to move to other living environments, particularly foster homes, if given a chance. The exact opposite behaviour was noticed among orphans in foster homes, who generally felt lower levels of psychosocial well-being in their living environments; yet, the majority indicated they still would prefer to stay in their foster homes, given a chance. When combining these conflicting behaviours with the fact that, generally, orphans who spent more years in one living environment consistently had lower levels of emotional well-being and mental distress, one would notice the complexity in the relationships between psychosocial well-being and living environments.

Here also lies the difficulty of ranking living environments based on their positive contributions to psychosocial well-being. For instance, orphans in child-headed households generally showed higher levels of capacity to deal with difficult situations, whereas those in the orphanages exhibited higher levels of emotional well-being and lower levels of mental distress. What can be inferred from these findings is that orphans do not perceive contentment or fulfilment in a particular living environment across all dimensions of psychosocial well-being. From the research in child development, it is known that parents offer children stability, protection, and belongingness (Bokhorst et al., 2010; Chitio et al., 2008; Decker, 2007; Pikko et al., 2013). In this context, orphanages may be good in providing stability and protection, but not necessarily in meeting the orphans' yearning for a specific family or belongingness. Likewise, foster homes could be appealing as they offer a parental figure and belongingness, but they may not be good enough in providing love and affection.

In this context, the findings by Hong et al. (2011) and Li (2010), which compared orphan-care types in China for HIV/AIDS orphans, could be

very helpful for getting better insights on the direction future care arrangements should follow for better and effective child development. Their findings indicated that orphans cared for in community-based home groups performed much better in all indicators (i.e., mental, emotional well-being, life-satisfaction, educational attainment, stigma, marginalization, and social support), followed by those in orphanages and foster homes. In the case of Rwanda, a Model for Community-Based Care "Nkundabana" (Kinyarwanda for "I love children,") were implemented by CARE Rwanda in 2003, where adults were unable to provide adequate care and protection to child-headed households and other orphans. The model mobilizes adult volunteers from the community to provide supervision, advice, and support to the orphans. Recent studies (Skovdal & Daniel 2012; Evans, 2011) have also reported also the resilience of orphans in overcoming difficult situations through participation in strong support networks and provision of positive care options (Tolfee, 2005). Future research would have to provide evidence whether the community-based home group care, which combines the advantages of orphanages and foster home together, provides better care for orphans.

The problem in care giving environment research is that the practical contexts within which such arrangements could be implemented—in countries with different social values and cultural norms—is not yet clear. Orphans in the orphanage reported lower levels of decision-making process, a sign that is worrisome and complements findings of previous studies that showed that children in orphanages tend to have limited social and life skills and find it difficult to survive outside of the institutions (Mann et al., 2012; UNICEF, 2004). According to a recent news analysis,[3] the Rwandan government is determined to close all 34 orphanages that have been caring for orphans, partly in response to the global movement that generally perceives orphanages to be harmful to the welfare of orphans. However, the move away from orphanages to other types of living environments needs to be based on evidence and careful investigation of the local and cultural contexts. As reported in the previous chapter, orphanages turned out to be associated with better emotional well-being and low mental distress, mainly due to limited exposure to stigma and marginalization. Thus, intensive community sensitization, legislation actions, and other measures to reduce stigma and marginalization should accompany the search for a better care environment for orphans in Rwanda.

A better perspective on psychosocial well-being and living environments was obtained when psychological vulnerability factors such as stigma and marginalization and support systems were fully accounted for.

[3] http://www.aljazeera.com/indepth/features/2015/12/closure-rwanda-genocide-orphanages-exacts-heavy-toll-151215114710827.html

In this context, stigma and marginalization accounted for nearly 50% of the variations in psychosocial well-being, which also reduced significantly the role of the living environments. For example, the reason those in the orphanages performed better in key measures of psychosocial well-being was because they were the least stigmatized and marginalized. After controlling for stigma, marginalization, and social support, street children exhibited less mental distress compared with all the other orphans. The implications of this result are far-reaching. Children in orphanages or foster homes tended to fare better regarding emotional well-being and mental distress, due mainly to less stigma and marginalization, and presence of better social support. Once that is considered, the relative advantage of their living environment vanishes. This result is consistent with Thurman et al. (2006), where young adolescents in Rwanda, mainly those in child-headed households, complained of severe lack of social support and perceived high level of stigma, and marginalization from the community.

This is an important finding that needs to be investigated closely in future research: Why did society's attitude towards orphans vary by living environments primarily, but not by cause of parental death, as had been well-established in previous research? For example, in previous studies (Cluver et al., 2008), AIDS orphans generally felt the most stigmatized, and this was primarily the reason for their heightened psychological problems. In this dissertation, AIDS orphans continued to experience lower emotional well-being and higher mental distress, even when stigma and marginalization was controlled for. Thus, it may be difficult to associate higher levels of psychological problems among AIDS orphans due to only stigma. In the case of this dissertation, it is speculated was that most of the participants who had lost their parents due to AIDS may also be living themselves with HIV, which potentially could be a reason for high level of mental distress. Finally, stigma and marginalization also had a strong impact on perceived social support. The mediation analysis clearly established that reduced social support due only to stigma contributed to a 10% lower level of emotional well-being. Thus, orphans not only felt stigmatized but also stigma and marginalization translated into lower social support. In this context, the dissertation also contributed to existing knowledge by differentiating and identifying different aspects of social support in enhancing psychosocial well-being as a buffer to stressful events.

In summary, this dissertation has highlighted the importance of providing adequate care, support, and protection by the society, communities, and governments, to improve the psychosocial well-being of orphans. As the orphan crisis unfolds around the globe, especially due to the conflict in the Middle East, the Rwandan experience becomes a crucial source of information about the psychosocial challenges orphans face. It follows that

the government, NGOs, and practitioners need to promote policies and practices that could enhance the psychosocial well-being of orphans in their respective living environments. The following lessons can be drawn from the preceding analysis:

- Care for orphans should not only involve material well-being but also be accompanied with psychosocial intervention. Psychosocial problems might not appear to be an immediate concern, but overall become crucial to orphans' well-being.
- Orphans are not homogenous, but rather heterogeneous groups; hence, they need a range of interventions specific to each group.
- The psychosocial well-being of orphans is significantly influenced by their living environments. Therefore, proper care must be given when determining where to place orphans after a major crisis. There is also a need for continuous monitoring and follow-up of the environments in which orphans live, to ensure they are protected from maltreatment such as abuse, exploitation, and other risks—including the stigma and marginalization that has been addressed in this dissertation.
- The implication of stigma and marginalization for an orphan's psychosocial well-being is also worrisome. Its impact has also degraded social support from the community. The stakeholders in such societies need to promote policies and practices that could mitigate the deleterious effect of stigma and marginalization through legislation, advocacy, and other means to enhance solidarity and provide social support to orphans.
- There is a need to acknowledge the importance of social support from different sources and functions in influencing the psychosocial well-being of orphans. It is important for government policymakers and practitioners to devise ways of strengthening and extending social support to orphans through the active participation of community members, particularly adults, in daily lives of orphans.
- The findings in the dissertation could inform policy in understanding and improving orphan's psychosocial well-being. Therefore, proper care should be given in interpretation and application of these findings, whether in Rwanda, the continent of Africa, or around the globe.

Reference

Abebe, T. (2009). Orphan-hood, Poverty and the Care Dilemma: Review of Global Policy Trends. Journal of Social Work and Society, 7 (1)

Ahmad, A., & Mohammad, K. (1996). "The socio-emotional development of orphans in orphanages and traditional foster care in Iraqi Kurdistan". *Child Abuse & Neglect,* 20(12), 1161-1173.

Ahmad, A., Qahar, J., Siddiq, A., Majeed, A., Rasheed, J., Jabar, F., Von Knorring, A. (2004). "A 2-year follow-up of orphans competence, socio-emotional problems and post-traumatic stress symptoms in traditional foster care and orphanages in Iraqi Kurdistan". *Child Care, health & development,* 31(2), 203-215.

Ansell, N., & Young, L. (2004). "Enabling household to support successful migration of AIDS orphans in Southern Africa". *AIDS Care,* 16(1), 3-10.

Atwine, Benjamin, Elizabeth Cantor-Graae, and Francis Bajunirwe (2005). "Psychological Distress Among AIDS Orphans in Rural Uganda." *Social Science and Medicine* 61(3):555–564.

Biangana, F., Thomas, R., & Comblain, C. (2005). *HIV/AIDS and Mental Health. Health, Nutrition and Population Discussion Paper.* Washington, DC: World Bank

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Biemba, G., Beard, J., Brooks, B., Bresnahan, M., and Flynn, D. (2010). *The Scale, Scope and Impacts of Alternative Care for OVC in Developing Countries: A Review of literature.* Center for Global Health & Development, Boston University.

Bird, S., Bogart, L., & Delahanty, D. (2004). Health-related correlates of perceived discrimination in HIV care. AIDS Patient Care and STDs, 18, 19–26.

Bokhorst, C., Sumter, S., & Westenberg, M. (2010). Social Support from Parents, Friends, Classmates, and Teachers in Children and Adolescents aged 9 to 18 years: Who Is Perceived as Most Supportive? *Social Development, 19(2), 417-426*

Bolton, P. (2001). Local perceptions of the mental health effects of the Rwandan genocide. *Journal of Nervous and Mental Disease, 188, 243–248.*

Bolton, P., Neugebauer, R., & Ndogoni, L. (2002). Prevalence of depression in rural Rwanda based on symptom and functional criteria. *Journal of Nervous and Mental Disease,* 190, 631–637.

Bray, R. (2003). Predicting the social consequences of orphan-hood in South Africa. *African Journal of AIDS Research, 2*(1), 39-55. doi: 10.2989/16085906.2003.9626558

Brown, L., Trujillo, L. & Macintyre, K.(2001).Intervention to reduce HIV/AIDS stigma: what have we learnt? Population council, Horizon program Tulane University. USIAD

Brown, Lisanne, Tonya R. Thurman, and Leslie Snider. (2005). "Strengthening the psychosocial well-being of youth-headed households in Rwanda: Baseline findings from an intervention trial," Horizons Research Update. Washington, D.C.: Population Council

Campbell, C., Foulis, C. A., Maimane, S., & Sibiya, Z. (2005). "I Have an Evil Child at My House": Stigma and HIV/AIDS Management in a South African Community. *American Journal of Public Health, 95*(5), 808-815. doi: 10.2105/ajph.2003.037499

Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). "Early Childhood Education: Young Adult Outcomes from the Abecedarian Project". *Applied Developmental Science,* 6(1), 42-57.

CARE-RWANDA (2003) http://www.crin.org/en/docs/Rwanda%20Nkundabana.pdf

Caserta, A. T., Pirttilä-Backman, A., Punamäki, R. (2016). The Association between Psychosocial Well-being and Living Environments: A Case of Orphans in Rwanda**.** *Child and Family Social Work*. doi:10.1111/cfs.12308

Chitiyo, M., Changara, D. M., & Chitiyo, G. (2008). Providing psychosocial support to special needs children: A case of orphans and vulnerable children in Zimbabwe. *International Journal of Educational Development, 28*(4), 384-392.

Cluver, L., & Gardner, F. (2006). The psychological well-being of children orphaned by AIDS in Cape Town, South Africa. *Annals of General Psychiatry, 5*(8).

Cluver, L., Gardner, F., & Operario, D. (2007). Psychological distress amongst AIDS-orphaned children in Urban South Africa. Journal of child psychology and psychiatry, 48, 755–763.

Cluver, L. D., Gardner, F., & Operario, D. (2008). Effects of Stigma on the Mental Health of Adolescents Orphaned by AIDS. *Journal of Adolescent Health, 42*(4), 410-417. doi: http://dx.doi.org/10.1016/j.jadohealth.2007.09.022

Cluver, L., & Orkin, M. (2009). Cumulative risk and AIDS-orphan-hood: Interactions of stigma, bullying and poverty on child mental health in South Africa. *Social Science & Medicine, 69*(8), 1186-1193. doi: http://dx.doi.org/10.1016/j.socscimed.2009.07.033

Cobb, S. (1976). Social support as a moderator of life stress. *Psychomatic medicine, 38,* 300-314.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypodissertation. *Psychological Bulletin, 98*(2), 310-357. doi: 10.1037/0033-2909.98.2.310

Danese, A., Moffitt, T. E., Pariante, C., Ambler, A., Poulton, R., and Caspi, A. (2008). "Elevated inflammation levels in depressed adults with a history of childhood maltreatment". *Brain, Behavior, and Immunity,* 22(4),7.

Daniel, M., & Mathias, A. (2012). "Challenges and coping strategies of orphaned children in Tanzania who are not adequately cared for by adults". *African Journal of AIDS Research, 11*(3), 191-201.

Daniel, M. (2005). Beyond liminality: orphan-hood and marginalisation in Botswana. *African Journal of AIDS Research, 4*(3), 195-204. doi: 10.2989/16085900509490358

De Witt, M., & Lessing, M. (2010). The psychosocial well-being of orphans in Southern Africa: the perception of orphans and teachers. *The Journal for Transdisciplinary Research in Southern Africa,* 6(2), 461-477.

Deacon, H., & Stephney, I. (2008). *HIV/AIDS, Stigma and Children: A Literature Review*. Pretoria: Human Sciences Research Council.

Decker, C.L. (2007). Social support and adolescents cancer survivors: A review of the literature. *Psycho oncology*, 16, 1-11.

Donovan, P. (2002). Rape and HIV/AIDs in Rwanda. Lancet, 360, s17-s18.

Dyregrov, A., Gupta, L., Gjestad, R., & Mukanoheli, E. (2000).Trauma exposure and psychological reactions to genocide among Rwandan children. *Journal of Traumatic Stress*, 13, 3–21.

Ejeta, B. (2005). "A comparative study of the psychological and social adjustment of non-institutionalized and institutionalized HIV/AIDS orphans in Addis Ababa, Ethiopia". Unpublished MSc Dissertation, *Department of Psychology*. Addis Ababa University, Addis Ababa

Evans, R. (2011). We are managing our own lives. Life transitions and care in sibling-headed households affected by AIDS in Tanzania and Uganda. *Area, 43*(4), 384-396. doi: 10.1111/j.1475-4762.2010.00954.x

Family Health International. (2002). *Orphans and vulnerable children head of household baseline survey in Four Districts in Zambia*. Lusaka, Zambia.

Foster, G. (2000). "The capacity of the extended family safety net for orphans in Africa". *Psychology, Health & Medicine, 5*(1), 55-62.

Foster, G. (2002). Beyond education and food: Psychosocial well-being of orphans in Africa. *Acta Paediatricia,* 91.

Foster, G., & Williamson, J. (2000). "A review of current literature on the impact of HIV/AIDs on children in Sub-Saharan Africa. *AIDS Care, 4*(4), 275-284.

Fox, S. (2001). Investing in our future: Psychosocial support for children affected by HIV/AIDS. A case study in Zimbabwe and the United Republic of Tanzania. Geneva: UNAIDS

Gilborn, L., Apicella, L., Brakarsh, J., Dube, L., Jemison, K., Kluckow, M., et al. (2006). Orphans and vulnerable youth in Bulawayo, Zimbabwe: An exploratory study of psychosocial well-being and psychosocial support. Horizons Final Report. Washington, DC: Population Council.

Goffman, E. (1963) Stigma: Notes on the management of spoiled identity. Englewood Cliffs, NJ: Prentice Hall

Hasanović, Melvudin, Osman Sinanović, Zihnet Selimbašić, Izet Pajević, and Esmina Avdibegović, E. 2006. "Psychological Disturbances of War-traumatized Children from Different Foster and Family Settings in Bosnia and Herzegovina." *Croatian Medical Journal* 47(1):85–94.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*. New York: The Guilford Press.

Heymann, J., Earle, A., Rajaraman, D., Miller, C., & Bogen, K. (2007). Extended family caring for children orphaned by AIDS: balancing essential work and care giving in a high HIV prevalence nations. AIDS Care, 19, 337–345.

Helgeson, V. (2002). Social support and quality of life. 25-31.

Hoggen. K.B (2005). Psychology, contemporary perspective. New York. Cambridge University

Hong, Y., Li, X., Fang, X., Zhao, G., Zhao, J., Zhao, Q., Lin, X., Zhang, L., and Stanton, B. (2011). "Care Arrangements of AIDs Orphans and their Relationship with Children's Psychosocial Well-Being in Rural China." *Health Policy and Planning* 26 (2), 115–123.

Hong, Y., Li, X., Fang, X., Zhao, G., Lin, X., Zhang, J., Zhang, L. (2010). Perceived Social Support and Psychosocial Distress among Children Affected by AIDS in China. *Community Mental Health Journal, 46*(1), 33-43.

House, J., Landis, K., & Umberson, D. (1988). Social relationships and health. Science, 214, 540-5.

House, J. S. (1981). Work Stress and Social Support, Addison-Wesley Educational Publishers Inc.

Jackson, Y., & Warren, J.S. (2000). Appraisal, social support, and life events: predicting outcome behavior in school-age children. Child Development, 71(5), 1441-57.

Jones E, Farina, A. Hastorf, A. Markus, H., Miller, DT, Scott, R.(1984). Social Stigma: The psychology of marked Relationships. New York. Freeman

Kumakech, E., Cantor-Graae, E., Maling, S., & Bajunirwe, F. (2009). Peer-group support intervention improves the psychosocial well-being of AIDS orphans: Cluster randomized trial. *Social Science & Medicine, 68*(6), 1038-1043.

Lakey, B., & Cohen, S. (2000). Social support theory and measurement. In S. Cohen, L. Underwood & B. Gottlieb (Eds.). *Measuring and intervening in social support*. New York: Oxford University Press

Lee, R., Kochman, A., & Sikkema, K. (2002). Internalized Stigma Among People Living with HIV-AIDS. *AIDS and Behavior, 6*(4), 309-319. doi: 10.1023/a:1021144511957

Li, X. (2010), "Care arraignments and psychosocial wellbeing of AIDs orphans: Evidence from Rural China, paper presented at Children and HIV: Family support first symposium July 16 &17th, Vienna Australia.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology, 27*, 363-385.

Link, B. G., & Phelan, J. C. (2006). Stigma and its public health implications. *Lancet, 367*(9509), 528-529. doi: 10.1016/S0140-6736(06)68184-1

Lynchard, N. A., & Radvansky, G. A. (2012). "Age-Related Perspectives and Emotion Processing". *Psychology and Aging,* 27(4), 934-939.

Mann, G., Long, S., Delap, E., and Connell, L. (2012). Children living with and affected by HIV in residential care. UK: EveryChild.

Makame, V., Ani, C., & Grantham-McGregor, S. (2002). Psychological well-being of orphans in Dar El Salaam, Tanzania. *Acta Paediatrica,* 91(4), 459-465.

Makoae, L. N., Greeff, M., Phetlhu, R. D., Uys, L. R., Naidoo, J. R., Kohi, T. W., Holzemer, W. L. (2008). Coping with HIV-related stigma in five African countries. *The Journal of the Association of Nurses in AIDS Care: JANAC, 19*(2), 137-146. doi: 10.1016/j.jana.2007.11.004

Margo, J., M. Dixon, N. Pearce, and H. Reed. 2006. Freedom's Orphans: Raising Youth in a Changing World. London: Institute for Public Policy Research (IPPR).

MIGEPROF (2006). Strategic Plan of Action for Orphans and Other Vulnerable Children 2007–2011. Republic of Rwanda. Available at: http://www.migeprof.gov.rw/IMG/pdf/STRATEGIC_PLAN_FOR_OVC-2.pdf

Morrow, V. 2001. *Networks and Neighborhoods: Children's and Young People's Perspectives*. London: Health Development Agency.

Mulatu, M. S. (1995). Prevalence and Risk Factors of Psychopathology in Ethiopian Children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34(1), 100-109.

Mudiappan, M., Mangaleswaran, R., & Hensilin, V. A. (2013). A study on assessing the internalization of stigma and discrimination and its implications among children living with HIV/AIDS. *International Journal of Advanced and Innovative Research, 8*(2), 443-447.

Munyandamutsa, N., Nkubamugisha, P., Gex-Fabry,M. and Eytan A. 2012. “Mental and Physical Health in Rwanda 14 Years after the Genocide.” *Social Psychiatry and Psychiatric Epidemiology 47*(11), 1753–1761.

Neugebauer, R., Fisher, P. W., Turner, J. B., Yamabe, S., Sarsfield, J. A., & Stehling-Ariza, T. (2009). “Post-traumatic stress reactions among Rwandan children and adolescents in the early aftermath of genocide”. *International Journal of Epidemiology,* 38(4), 1033-1045.

Nyambedha, E.O., Wandibba, S., and Aagaard-Hansen, J. (2001).”Policy Implications of the Inadequate Support Systems for Orphans in Western Kenya. *Health Policy*, 58(1), 83-96.

Nyamukapa, Constance A. Simon Gregson, Ben Lopman, Suzue Saito, Helen J. Watts, Roeland Monasch and Matthew C. H. Jukes. (2008). “HIV-Associated Orphan-hood and Children’s Psychosocial Distress: Theoretical Framework Tested With Data From Zimbabwe.” *American Journal of Public Health* 98(1), 133–141.

Oleke, C., Blystad, A., & Rekdal, O. B. (2005). “When the obvious brother is not there”: Political and cultural contexts of the orphan challenge in northern Uganda. *Social Science & Medicine, 61*(12), 2628-2638.

Panpanich, R., Brabin, B., Gonani,A. & Graham, S. (1999). Are Orphans at Increased Risk of Malnutrition in Malawi? *Annals of Tropical Paediatrics* 19(3), 279–285.

Parry, C. D. H. (1996). “A Review of Psychiatric Epidemiology in Africa: Strategies for Increasing Validity When Using Instruments Transculturally”. *Transcultural Psychiatry, 33*(2), 173-188.

Piko, B. F., Luszczynska, A., & Fitzpatrick, K. M. (2013). Social inequalities in adolescent depression: The role of parental social support and optimism. *International Journal of Social Psychiatry, 59*(5), 474-481.

Pollard, E. & Lee, P. (2003). Child well-being: A systematic review of the literature. *Social Indicators Research,* 61, 59-78.

Raffaelli, M., Andrade, F. C. D., Wiley, A. R., Sanchez-Armass, O., Edwards, L. L., & Aradillas-Garcia, C. (2013). Stress, Social Support, and Depression: A Test of the Stress-Buffering Hypodissertation in a Mexican Sample. *Journal of Research on Adolescence, 23*(2), 283-289.

Reynolds, A. J., J. A. Temple, D. L. Robertson, and E. A. Mann. (2001). “Long-Term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest: A 15-Year Follow-Up of Low-Income Children in Public Schools.” *JAMA* 285(18):2339–2346.

Richter, L., G. Foster, and L. Sherr. (2006). *Where the Heart Is: Meeting the Psychosocial Needs of Young Children in the Context of HIV/AIDS*. The Hague, The Netherlands: Bernard van Leer Foundation.

Roeloffs, C., Sherbourne, C., Unu¨tzer, J., Fink, A., Tang, L., & Wells, K. (2003). Stigma and depression among primary care patients.General Hospital Psychiatry, 25, 311–315.

Ruiz-Casares, Mónica, Brett D. Thombs, and Cécile Rousseau. (2009). "The Association of Single and Double Orphan-hood with Symptoms of Depression among Children and Adolescents in Namibia." *European Child and Adolescent Psychiatry* 18(6):369–376

Rutter, M., Sonuga-Barke, E J.; Beckett, C ; Kreppner,J., Kumsta, J., Schlotz, Wolff, R., Stevens, Suzanne; Bell, Christopher A.; Gunnar, Megan R. (2010). *Deprivation-Specific Psychological Patterns: Effects of Institutional Deprivation*. London: Wiley-Blackwell

Ryff, C. D. (1995). "The Structure of psychological well-being revisited". *Journal of personality and social psychology,* 69(4), 719-727.

Santrock, J.W. (1999). Life span development (10th edition). New York. McGraw Hill. Inc

Sagric, C., Radulovic, O., Bogdanovic, M., & Markovic, R. (2007). Social Marginalization and Health. *Acta Medica Mediana, 46*(2), 49-52.

Schaal, S., & Elbert, T. (2006). Ten Years After the Genocide: Trauma Confrontation and Posttraumatic Stress in Rwandan Adolescents. *Journal of Traumatic Stress,* 19(1), 95-105.

Skovdal, M. & Daniel, M. (2012). Resilience through Participation and Coping-Enabling Social Environments: The Case of HIV-Affected Children in Sub-Saharan Africa. *African Journal of AIDS Research, 11*(3), 153-164. doi: 10.2989/16085906.2012.734975

Snider, L. (2005). 'Psychosocial module' for the guide to monitoring and evaluation of programs for orphans and vulnerable children (draft, in review). Washington, DC: Family Health International.

Stewart, Robert C., Eric Umar, Barbara Tomenson, and Francis Creed. (2013). "Validation of Screening Tools for Antenatal Depression in Malawi. A Comparison of the Edinburgh Postnatal Depression Scale and Self Reporting Questionnaire." *Journal of Affective Disorders* 150(3):1041–1047.

Tadesse, S., F. Dereje, M. Belay, (2014), "Psychosocial wellbeing of orphan and vulnerable children at orphanages in Gondar Town, North West Ethiopia". *Journal of public health and epidemiology*, 6(10), 293-301.

Thurman, T. R., Snider, L. A., Boris, N. W., Kalisa, E., Nyirazinyoye, L. and Brown, L. (2008). "Barriers to the community support of orphans and

vulnerable youth in Rwanda". *Social Science & Medicine, 66*(7), 1557-1567.

Thurman, T. R., Snider, L., Boris, N., Kalisa, E., Nkunda Mugarira, E., Ntaganira, J., & Brown, L. (2006). Psychosocial support and marginalization of youth-headed households in Rwanda. *AIDS Care, 18*(3), 220-229.

Tolfree, D. (2005). *Facing the Crisis: Supporting children through positive care options*. London: Save the Children.

UNAIDS Global Report (2008). Report on the global AIDS epidemic. http://data.unaids.org/pub/GlobalReport/2008/jc1510_2008global report_en.pdf

UNICEF. Children on the brink (2004). A joint report of new orphan estimates and a framework for action. New York.

UNICEF, UNAIDS and UNSAID (2004), Children on the Brink 2004 A Joint Report of New Orphan Estimates and a Framework for Action, Fourth dition, http://www.unicef.org/publications/files/cob_layout6-013.pdf

UNICEF (2003). Africa's orphaned generation. Ney York: UNICEF

UNICEF (2013). "Statistics by Area". Retrieved May 2, 2013 (http://www.childinfo.org/hiv_aids_orphanestimates.php.)

Varas-Diaz, N., Serrano-Garcia, I., & Toro-Alfonso, J. (2005). AIDS-related stigma and social interaction: Puerto Ricans living with HIV/AIDS. *Qualitative health research, 15*(2), 169-187. doi: 10.1177/1049732304272059

Veale, A., & Dona, G. (2003). Street children and political violence: a socio-demographic analysis of street children in Rwanda. *Child Abuse & Neglect, 27*(3), 253-269.

Veale, A., Padraig, Q., Ndibeshye, T., & Nyirimihigo, C. (2001). Struggling to survive: Orphan and community dependent children in Rwanda. Dublin: Trocaire.

Veale, A., and Quigley, P. (2001). Struggling to survive: Orphan and community dependent children in Rwanda. Ministry of Local Government and Social Affairs and UNICEF. Implemented by Trócaire and Care

Vozoris, N.,and Tarasuk, V. (2003). "Household Food Insufficiency is Associated with Poorer Health. *Journal of Nutrition,* 133(1), 120-126.

Wang, B., Li, X., Barnett, D., Zhao, G., Zhao, J., & Stanton, B. (2012). Risk and protective factors for depression symptoms among children affected by HIV/AIDS in rural China: A structural equation modeling analysis. *Social Science & Medicine, 74*(9), 1435-1443. doi: http://dx.doi.org/10.1016/j.socscimed.2012.01.007

Weinreb, L., Wehler, C., Perloff, J., Scott, R., Hosmer, D., Sagor, L., et al. (2002). Hunger: It's Impact on Children's Health and Mental Health. *Pediatrics,* 110(4), e41-e41.

Wesley, K. M., Zelikovsky, N., & Schwartz, L. A. (2013). Physical Symptoms, Perceived Social Support, and Affect in Adolescents with Cancer. *Journal of Psychosocial Oncology, 31*(4), 451-467. doi: 10.1080/07347332.2013.798761

Whetten, K., Ostermann, J., Whetten, R. A., Pence, B. W., O'Donnell, K., Messer, L. C. and Thielman, N. M. (2009). "A Comparison of the Wellbeing of Orphans and Abandoned Children Ages 6-12 in Institutional and Community-Based Care Settings in 5 less Wealthy Nations". *PLoS One, 4*(12), e8169.

Wild, L., Flisher, A. J., Laas, S., & Robertson, B. A. (2005). *The Psychosocial Adjustment of Adolescents Orphaned in the Context of HIV/AIDS*. University of Cape Town. Cape Town.

WHO (2005). *Progress Report*: *Child and Adolescents Health and Development. Department of Child and Adolescent Health and Development* .Geneva, Switzerland: Department of Child and Adolescent Health and Development (CAH). World Health Organization.

WHO (1994). *A User Guide to the Self Reporting Questionnaire (SRQ).* Geneva: Division of Mental Health, World Health Organization. WHO/MNH/PSF/94.8

Wolff, P. H. and Fesseha, G. (1998). "The orphans of Eritrea: Are Orphanages Parts of the Problem or Part of the Solution? *American Journal of Psychiatry* 15(10), 1319–24.

Wolff, P. H., and Fesseha, G. (2005). "The Orphans of Eritrea: What are the Choices? *American Journal of Orthopsychiatry, 75*(4), 475-484.

Wright, E. R., Gronfein, W. P., & Owens, T. J. (2000). Deinstitutionalization,social rejection, and the self-esteem of former mental patients. Journal of Health and Social Behavior, 41,68–90.

Young, L., and Ansell, N. (2003). "Fluid Households, Complex Families: The Impacts of Children's Migration as Response to HIV/AIDS in Southern Africa. *Professional Geographer*, 55(4), 464-476

Zhao, J., Li, X., Fang, X., Hong, Y., Zhao, G., Lin, X., Stanton, B. (2010). Stigma against children affected by AIDS (SACAA): psychometric evaluation of a brief measurement scale. *AIDS and Behavior, 14*(6), 1302-1312. doi: 10.1007/s10461-009-9629-8

Zhao, G., Zhao, J., Li, X., Stanton, B., Fang, X., Lin, X. and Hong, Y. (2011). Functions and sources of perceived social support among children affected by HIV/AIDS in China, *AIDS Care*. 23(6), 671–679

Zhao, Q., Li, X., Fang, X., Stanton, B., Zhao, G., Zhao, J., & Zhang, L. (2009). Life Improvement, Life Satisfaction, and Care Arrangement among AIDS Orphans in Rural Henan, China. *Journal of Association of Nurses AIDS Care, 20*(2), 122-132.

Zhao, Q., Li, X., Kaljee, L. M., Fang, X., Stanton, B., and Zhang, L. (2009). "AIDS

Orphanages in China: Reality and Challenges. *AIDS Patient Care STDS, 23*(4), 297-303.

Zimmerman, B., (2005).Orphans Living Situation in Malawi: A Comparison of Orphanages and foster homes. *Review of Policy Research*, 22(6), 881-917